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Aerospace Corp, El Segundo, Calif Environmental Programs Group

Prepared for

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VOLUME II

TECHNICAL DISCUSSION

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VOLUME II
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FOREWORD

This report, prepared by The Aerospace Corporation for the Environmental Protection Agency, Division of Emission Control Technology, presents the results of an analysis of the historical weight trends of passenger cars sold in the United States over a 16-year period, 1958 through 1973.

The results of this study are presented in two volumes. Volume I, Executive Summary, presents a brief, concise review of important findings and conclusions in the Highlights and Executive Summary sections. Volume II, Technical Discussion, provides a detailed discussion of each study topic and is of interest primarily to the technical specialist. In Volume II, the general analysis technique, parameters examined, and data sources used are delineated in Section 2. Section 3 presents a graphical display of study results, together with brief discussions of noted trends. It illustrates trends for sales distribution, curb weight, inertia test weight class, wheelbase and length, engine displacement, compression ratio, and accessory weights. An appendix of tables is included to summarize all parameters examined in terms of sales-weighted averages. These tables include breakdowns by market class and by nameplate.

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Mr. William Smalley was principally responsible for the acquisition and analysis of the data presented herein. The following additional personnel of The Aerospace Corporation also made valuable contributions to the analyses performed under this contract.

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HIGHLIGHTS

Table 1. Domestic 1973 Models - By Market Class

STANDARD SIZE CLASS	AMC (Ambassador) Buick (LeSabre, Electra, Centurion) Cadillac (all except Eldorado) Chevrolet (Caprice, Impala, Biscayne, Bel Air) Chrysler (including Imperial) Dodge (Polara, Monaco) Ford (LTD, Galaxie, Custom) Lincoln (all except Mark IV) Mercury (Monterey, Marquis) Oldsmobile (Delta, 98) Plymouth (Fury, Gran Sedan) Pontiac (Catalina, Bonneville, Grand Ville)
INTERMEDIATE SIZE CLASS	AMC (Matador) Buick (Century) Chevrolet (Chevelle) Dodge (Coronet, Charger) Ford (Torino) Mercury (Montego) Oldsmobile (Cutlass) Plymouth (Satellite) Pontiac (Le Mans) (1.4% of imports are in this class)
COMPACT SIZE CLASS	AMC (Hornet) Buick (Apollo) Chevrolet (Nova) Dodge (Dart) Ford (Maverick) Mercury (Comet) Oldsmobile (Omega) Plymouth (Valiant) Pontiac (Ventura) (8.2% of imports are in this class)
SUBCOMPACT SIZE CLASS	AMC (Gremlin) Chevrolet (Vega) Ford (Pinto) (90.4% of imports are in this class)
SPECIALTY CAR CLASS	AMC (Javelin) Buick (Riviera) Cadillac (Eldorado) Chevrolet (Camaro, Corvette, Monte Carlo) Dodge (Challenger) Ford (Mustang, Thunderbird) Lincoln (Mark IV) Mercury (Cougar) Oldsmobile (Toronado) Plymouth (Barracuda) Pontiac (Firebird, Grand Prix)

HIGHLIGHTS

An analysis was made of the historical weight trends of passenger cars sold in the United States over a 16-year period, 1958 through 1973. Also examined were ancillary characteristics such as dimensional trends, displacement and compression ratio trends, and power and luxury item use trends.

Passenger cars have historically been divided by the industry into five basic market classes (see Table 1): standard size, intermediate size, compact size, subcompact size, and specialty cars. These market classes are closely, but not exclusively, related to wheelbase dimensions. The specialty class encompasses both large (e. g., Cadillac Eldorado) and small (e. g., Mustang) high-performance or sports models. Within each market class there are numerous corporations, domestic and foreign, producing cars for U. S. sale under various nameplates (Chevrolet Impala and Ford Galaxie 500 in the standard class, Chevrolet Nova and Plymouth Valiant in the compact class, Ford Pinto and Volkswagen Beetle in the subcompact class, etc.). The number of car models sold in any given year runs in the hundreds (304 domestic models in 1973). To determine an "average" weight value for the overall market in any given year, it is necessary to proportionally integrate the sales and weights of each car model or nameplate sold in that year to arrive at a sales-weighted average weight value.

The weight trend analysis and examination of ancillary characteristics resulted in the following findings.

A. Sales Trends

1. Total yearly sales of passenger cars in the U. S. have risen from about 3. 15 million in 1947 to 11. 34 million in 1973. Sales have been increasing at an average rate of approximately 315, 000 units per year over this 26-year period after World War II. Sales in any given year, however, can vary considerably from the norm due to general economic conditions, strikes, etc.

2. Import car sales rose sharply from 1962 to 1970. Although sales volume continued to rise from 1970 to 1973, their percent of total sales remained relatively constant (approximately 15%).

3. In 1958, approximately 90% of all U.S. passenger cars were of the standard size class. From 1958 the share of the market occupied by the standard size car decreased dramatically, dropping to approximately 31% in 1973. This was occasioned by the introduction and public acceptance of the smaller size market classes during this period.

4. Subcompact sales more than doubled in the 1966-73 period. Subcompacts, in 1973, were the second-highest-selling market class (approximately 23% of total sales). The intermediate class was a close third in 1973, having approximately 20% of total sales.

5. The four major domestic corporations had 84.5% of the total passenger car sales in 1973. Adding Volkswagen, Datsun, and Toyota to this group accounts for 93.3% of the total sales. The four domestics plus the top ten imports account for 98.0% of the total passenger car sales.

6. The percent sales distribution between the domestic corporations has been relatively constant for the last 10 years. In 1973, General Motors had 44% of total U.S. passenger car sales; Ford had 24%; Chrysler had 14%; and American Motors had 3%.

B. Weight Trends

1. Passenger cars in all market classes have shown a marked and steady increase in curb weight with time. This curb weight increase trend is independent of manufacturer. For example, Chevrolet and Ford standard size cars increased approximately 1100 lb (33%) and 980 lb (29%), respectively, between 1956 and 1974. In the intermediate class, the Fairlane/Torino series increased curb weight by approximately 1100 lb (36%) from 1962 to 1974; the Chevelle increased curb weight 900 lb (28%) from 1966 to 1974. In the compact class, from 1962 to 1974 the Chevy II/Nova series increased curb weight by 940 lb (36%), while the Valiant increased by 620 lb (24%).

2. The intermediate class car of 1974 weighs about the same as the standard size car of 1970 (approximately 4200 lb curb weight). Similarly, the compact car of 1974 has about the same curb weight as the intermediate car of 1966 to 1970 (approximately 3300-3600 lb).

3. The overall sales-weighted curb weights of U. S. passenger cars dropped sharply from the 1958 level (approximately 3700 lb) to approximately 3450 lb in the 1960-64 period. This was due to the introduction of compacts in 1960 and high sales of both compacts and intermediates in that period. Since 1964, sales-weighted curb weights have risen steadily, reaching approximately 3650 lb in 1973.

4. The overall U. S. sales-weighted inertia test weight average (including domestic and foreign cars) has the same general pattern as curb weight variation with time. It dropped sharply from the 1958 level (3967 lb) to its lowest value of 3712 lb in 1961. Since 1961 there has been a steadily rising sales-weighted inertia test weight trend, reaching a new high value of 3968 lb in 1973.

5. Curb and inertia test weight values for domestic passenger cars surpassed their 1958 levels in 1970 and appear to be on a still-rising trend. For example, the sales-weighted inertia test weight average, for domestic cars only, was 4223 lb in 1973, compared with 4096 lb in 1958.

C. Dimensional Trends

1. Standard size Fords and Chevrolets have increased wheelbase approximately 6 in. (5%) and overall length from 15 to 22 in. (7 to 11%) in the period 1957 to 1974. All market classes show a sharp increase in overall length in 1973 and 1974, presumably due to safety bumper provisions.

2. Domestic intermediate and compact models also have increased wheelbase and overall length with time. Some domestic intermediates are now using a shorter wheelbase for the 2-door model than for the 4-door model. The 1974 intermediates are as long (206 to 215 in.) as some 1957-70 standard size cars (200 to 216 in.). The 1974 compact models (~197 in.) are as long as 1962-66 intermediates (197 in.).

D. Displacement and Compression Ratio Trends

1. In 1973, the U. S. total sales-weighted engine displacement was slightly lower than in 1958. The average displacement of domestic passenger cars was approximately 20 cu in. (7%) higher in 1973 than in 1958, even though the sales of less-than-standard-size cars increased from 10% to 69% of total sales during this period. The sales-weighted displacement of the standard size class increased nearly 67 cu in. (22%) to a value of 371.4 cu in. in this same period.

2. The sales-weighted engine displacement of import models rose approximately 32 cu in. (43%) in the period 1958-1973.

3. The 1973 U.S. total sales-weighted compression ratio was the lowest since 1962 (approximately 8.2). The import compression ratio rose to 8.15 in 1973 from 7.0 in 1958. The impact of anticipated use of lower octane unleaded gasoline has been forcing the trend of domestic and U.S. total sales-weighted compression ratio values.

E. Accessory Equipment Trends

1. Air conditioning was installed on 73% of all domestic cars in 1973, up from 8% in 1960. It accounted for 73 lb of weight per car in 1973 on a sales-weighted basis, or approximately 1.85% of the average curb weight in 1973.

2. The other optional power and luxury items are also increasing in popularity, accounting for 47 lb per car in 1970, or approximately 1.25% of the average curb weight in 1970. More and more of these items (power brakes, power steering, power windows, radios, bucket seats, etc.) are being made standard equipment and thus are no longer accounted for as optional power equipment.

3. Air conditioning plus all other optional power and luxury items represented approximately 2.9% of the passenger car curb weight in 1970. This value dropped to 2.6% in 1972 because some items that were optional in 1970 became standard equipment in 1972.

4. Based on trends from 1966 to 1970, the combined value for air conditioning plus all other power and luxury items (standard plus optional) is estimated to be approximately 3.2% of the curb weight in 1973.

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SECTION 1

INTRODUCTION

1.1 BACKGROUND, OBJECTIVES, AND SCOPE

Concern over the nation's steadily increasing consumption of automotive petroleum fuel has prompted many investigations of causal relationships and of methods whereby automotive gasoline consumption can be reduced. One such well-known relationship is the decrease in fuel economy (miles per gallon) that occurs as vehicle weight increases. Passenger car fuel economy is essentially inversely proportional to vehicle weight (Ref. 1-1) when driven over the EPA Urban Dynamometer Test Schedule (Ref. 1-2).

Despite the fact that the major specifications (including vehicle weight) of domestic and import passenger cars sold in the U.S. are published every year in various trade journals and magazines, there has not been a clear and definitive picture available as to how passenger car weight has been varying from year to year. Although it has been clear to the eye that certain car models have been getting wider, longer, and ostensibly heavier, the total number of car models available and the variation in model mix have prevented a definitive picture of overall or sales-weighted passenger car weight variations with time.

For example, passenger cars have historically been divided by the industry into five basic market classes: standard size, intermediate size, compact size, subcompact size, and specialty cars. The specialty class encompasses both large (e.g., Cadillac Eldorado) and small (e.g., Mustang) high performance or sports models. Within each market class there are numerous corporations, domestic and foreign, producing cars for U.S. sale under various nameplates (Chevrolet Impala and Ford Galaxie 500 in the standard class, Chevrolet Nova and Plymouth Valiant in the compact class, Ford Pinto and Volkswagen Beetle in the subcompact class, etc). The number of car models sold in any given year runs in the hundreds (304 domestic models in 1973), thus simplistic observations of the weight trends of the overall passenger car market are not meaningful. To determine an "average" weight value for the overall market in any given year it is necessary to proportionally integrate the sales and weights of each car model or nameplate sold in that year to arrive at a sales-weighted average weight value.

Therefore, the present study was initiated with the objective of identifying, quantifying, and summarizing the historical weight trends of passenger cars sold in the United States over a 16-year period, 1958 through 1973.

The principal efforts of the study were limited to weight trends; however, ancillary characteristics such as dimensional trends, displacement and compression ratio trends, and power and luxury item use trends were also examined.

1.2 ACQUISITION OF RELEVANT DATA

Nearly all of the data reported herein were acquired and developed between 1 May 1973 and 15 January 1974 from information available in the open literature. Principal data sources were automotive trade journals or reference books covering the period 1958 to 1973. Supplementary registration data for import cars by model breakdown were obtained from the R. L. Polk Company.

Specific data sources and their use are described in Appendix A.

1.3 METHOD OF REPORTING

The results of the study are reported in the following order and context.

Section 2 - Analysis Method

An identification of the general analysis technique employed and the parameters examined; a definition of the market class breakdown used.

Section 3 - Analysis Results

A graphical display of study results with brief discussions of noted trends. Includes: (a) passenger car sales distribution trends with breakdowns by market class, by corporation (domestic and foreign), and by selected divisions of domestic corporations; (b) passenger car curb-weight trends for selected car nameplates, with a further breakdown by market class; (c) the sales-weighted weight trends of passenger cars with breakdown by market class, by corporation (domestic and foreign), and by selected divisions of domestic corporations; (d) an inertia test weight matrix that describes the sales and percent sales (of the yearly total) for each inertia test weight class as used for exhaust emission compliance testing (as defined in Ref. 1-2); (e) typical wheelbase and length trends (by market class with nameplate examples), together with overall sales-weighted dimensional trends; (f) engine displacement and compression ratio trends; and (g) accessory weight trends.

Appendix of Tables

Includes summary tables of all parameters examined in terms of sales-weighted averages. Includes breakdowns by market class, combined market classes, and by nameplate. The nameplate tables are limited to the selected years of 1958, 1962, 1966, 1970, and 1972.

SECTION 2

ANALYSIS METHOD

This section discusses the analysis methods and assumptions used to evaluate the various passenger car parameters addressed in this study. Three broad parametric categories were considered: vehicle weights, body dimensions, and engine characteristics.

In performing the analyses, certain general assumptions were made as dictated by the availability of pertinent data. For example, the reported percentage of factory installations for a given option (6- or 8-cylinder engines, air conditioning, etc.) for a particular model year was assumed to apply to the reported sales for that calendar year. This assumption was adhered to throughout, with the exception of a few isolated cases where sales for two consecutive model years were separately reported within a single calendar year. It was also assumed that all vehicles were equipped with the conventional 4-, 6-, or 8-cylinder standard engines. No attempt was made to account for any weight increase due to optional, nonstandard high-performance engines because of the lack of specific sales data. The study was also limited to factory installations of optional equipment, since sufficient data were not available on aftermarket sales.

Specific data sources and their use are further described in Appendix A.

2.1 TECHNIQUE EMPLOYED

The technique employed to determine the sales-weighted value of a given parameter consisted of (a) determining the sales for a given model class, (b) evaluating the vehicle parameters of interest (as discussed in Section 2.2), and (c) calculating the sales-weighted average value according to the relationship

$$\overline{P} = \frac{\sum_{i=1}^{n} Si\ Pi}{\sum_{i=1}^{n} Si}$$

where

$\overline{P}$ = Sales-weighted average value of a given parameter P

Si = Total sales for a given car model class

Pi = Effective value of a given parameter P for that car model class

n = Total number of car model classes evaluated

The term "car model class" as used herein is defined as a single reported sales category that encompasses more than one model. For example, in 1972, a total of 98 domestic car model classes for which sales data were reported encompasses a total of 297 different models.

2.2 PARAMETERS EXAMINED

As previously pointed out, three broad categories of vehicle parameters were examined and sales-weighted trends developed. These included weights, body dimensions, and engine characteristics.

Passenger car weight trends included the evaluation of curb weight, inertia weight, air conditioning weight, and those power and luxury items for which the percentage of factory installations was reported for a given model year.

Dimensional trends included wheelbase, overall length, overall width, and total overhang.

Engine characteristics included displacement and compression ratio. Horsepower was not evaluated because of differing criteria between domestic and imported cars in combination with the change from gross to net horsepower rating for domestic cars commencing in 1972.

2.2.1 Passenger Car Weight Parameters

Two basic passenger car weight parameters were examined: curb weight and inertia weight. To evaluate these weights on a consistent basis, it was necessary to start with the shipping weight and add a series of delta weights to arrive at the curb weight according to the relationship

$$W_c = W_{sh} + \Delta W_e + \Delta W_{at} + \Delta W_{ac} + \Delta W_{pe} + \Delta W_{li} + \Delta W_{gas}$$

where

W_c = Curb weight

W_{sh} = Average shipping weight of all models within a given car model class

ΔW_e = Effective additional engine weight due to a mix of more than one engine size (e.g., 6- and 8-cylinder) in the same model

ΔW_{at} = Effective weight change due to the use of automatic transmission

ΔW_{ac} = Effective weight change due to the use of air conditioning

ΔW_{pe} = Effective weight change due to the use of power brakes, power disc brakes, power steering, power seats and power side windows, and power tailgate windows (station wagons only)

ΔW_{li} = Effective weight change due to the use of luxury items such as radios, vinyl top, and bucket seats

ΔW_{gas} = Weight of a full tank of gasoline

The term "effective weight", as used above, is defined to be the absolute weight of a given item multiplied by the percentage of cars equipped with that item. For example, if an air conditioning unit weighs 100 lb and

90% of the cars in a given model class are equipped with air conditioning, then the effective weight ΔW_{ac} to be added to all cars in that class would be 100×0.9, or 90 lb.

The loaded vehicle weight W_l has been calculated as defined in the Federal Register, Section 85.002 (Ref. 1-2):

$$W_l = W_c + 300 \text{ lb}$$

The inertia weight W_i is a function of W_l, as defined in the Federal Register, Section 85.073-15 (Ref. 1-2) and presented in Table 2-1.

Table 2-1. Inertia Weight as a Function of Loaded Weight

Loaded vehicle weight, lb	Equivalent inertia weight, lb
Up to 1125	1000
1126 to 1375	1000
1376 to 1625	1500
1626 to 1875	1750
1876 to 2125	2000
2126 to 2375	2250
2376 to 2625	2500
2626 to 2875	2750
2876 to 3250	3000
3251 to 3750	3500
3751 to 4250	4000
4251 to 4750	4500
4751 to 5250	5000
5251 to 5750	5500
5751 to above	5500

2.2.1.1 Shipping Weight (W_{sh})

As previously pointed out, the car model class for which a single sales total was reported included more than one model (2-door sedan, 4-door sedan, 2-door hardtop, etc.). To arrive at a single shipping weight corresponding to the sales category, the arithmetic mean for all models for that sales category was used as the representative shipping weight, based upon the shipping weights for each model as reported in Ref. 2-1.

2.2.1.2 Engine Weight (ΔW_e)

It was also necessary to account for the difference in weight for a given car model equipped with different standard engines (e.g., 6- or 8-cylinder). This engine weight delta was evaluated by first determining the difference between the average shipping weight of all 8-cylinder models, for example, compared to all 6-cylinder models. Differences between 4- and 6-cylinder models were accounted for in the same fashion. This weight difference was then multiplied by the percentage of cars equipped with the heavier engines and the resulting ΔW_e added to the average weight of the lighter car to obtain an effective weight for the mix. For example, if the average shipping weight of 8-cylinder cars in a given model class was 3760 lb, and the average weight of the 6-cylinder models was 3600 lb, with 80% of the cars equipped with 8-cylinder engines, the resulting effective engine weight change ΔW_e to be added to the shipping weight of the 6-cylinder cars is $(0.8) \times (3760 - 3600)$, or 128 lb. This results in an effective shipping weight for all 6- and 8-cylinder models of that class of 3728 lb.

2.2.1.3 Automatic Transmission Weight (ΔW_{at})

The effective weight change due to the use of an automatic transmission was accounted for in a similar fashion. It is of interest that the change in weight due to the use of the automatic transmission has been steadily decreasing over the time span covered by this study and currently results in essentially no weight penalty.

2.2.1.4 Air Conditioning Weight (ΔW_{ac})

The weight increase attributable to air conditioning was determined in a similar fashion. Although the weight of an air conditioning unit has decreased somewhat over the years, the dramatic increase in the number of factory installations (73% in 1973) has resulted in a sales-weighted effective ΔW_{ac} of 73 lb per passenger car (domestic only) for 1973.

2.2.1.5 Power Equipment Weight (ΔW_{pe})

The power equipment items that were considered were based on items for which the percentage of factory installations was reported. These included power drum brakes, power disc brakes, power steering, power seats, and power side and tailgate windows. The weight of each unit was determined from Ref. 2-1 and multiplied by the percentage of a given model so equipped (Ref. 2-2) to obtain the effective weight for each item. These were then summed, together with the luxury items, below, to obtain a single value for power and luxury items, the value of which was then sales-weighted to obtain the trend value reported.

2.2.1.6 Luxury Items Weight (ΔW_{li})

Luxury items considered included radios, bucket seats, and vinyl tops. The same procedure was used as for the power equipment items.

2.2.1.7 Gasoline Weight (ΔW_{gas})

The weight of gasoline added to the shipping weight was taken to be that of a full tank at 6 lb-per gallon (Ref. 2-3).

2.2.2 Passenger Car Dimensional Parameters

The dimensional characteristics evaluated included the wheelbase, overall length, and overall width. A fourth parameter, total overhang, was derived from the length and wheelbase, such that

$$\text{Total Overhang} = \text{Overall Length} - \text{Wheelbase}$$

This derived parameter is indicative of the rate at which the overall length has exceeded wheelbase increases.

When a different wheelbase and overall length was reported for 2-door and 4-door models (e.g., 1972 Chevelle, Torino) the average value of each was used since a sales breakdown between the 2-door and 4-door models was not available.

2.2.3 Engine Characteristics

Two basic engine characteristics were evaluated, displacement in cubic inches (CID) and compression ratio (CR). In each case, the technique employed was to determine the effective values based on the percentage of cars within a given model class equipped with differing engines.

A typical case is illustrated by the 1970 American Motors Javelin, available with either a 6-cylinder engine (232 CID and 8.5 CR) or the V-8 (304 CID and 9.0 CR), with 79.7% of the cars equipped with the V-8 engine and 20.3% equipped with the 6-cylinder engine. In this instance, the two engine characteristics would be:

$$\text{CID} = (232)(.203) + (304)(.797) = 289.4$$
$$\text{CR} = (8.5)(.203) + (9.0)(.797) = 8.9$$

These two effective values were then used in determining the sale-weighted values.

2.3 MARKET CLASSES

The industry classification of standard market classes as delineated in the Automotive News Almanac (Ref. 2-2) was used throughout for comparing sales and sales-weighted parameters.

These market classes for domestic cars include: standard size, intermediates, compacts, subcompacts, and specialty cars. The 1973 domestic models are listed by market class in Table 2.2 Also shown is a breakdown by body style (4-door sedan, 2-door hardtop, etc.) from which it can be seen that a total of 304 domestic models were offered for 1973 compared to 297 for 1972.

The market classes are closely, but not exclusively, related to wheelbase (WB). The specialty cars represent a mixed class that covers the complete range of market classes as far as wheelbase is concerned, from the Corvette (98-in. WB) to the Eldorado (126-in. WB). This class represents cars having more luxurious appointments, special body styling, and/or larger engines and higher performance than those in the other four market classes.

The import cars are not generally categorized by market class. However, for this report, they were grouped by market class according to the following wheelbase ranges:

Class	Wheelbase, in.
Subcompact	100 or less
Compact	101 to 111
Intermediate	112 to 118
Standard Size	119 or more

None of the import cars have been categorized as specialty cars.

Table 2-2. 1973 Models - By Market Class

	4-dr. Sed.	2-dr. Sed., Coupe	4-dr. Hard-top	2-dr. Hard-top	Conv.	Wagon	1973 Total	(Final 1972 Total)
SUBCOMPACTS	0	5	0	0	0	2	7	(7)
Gremlin	0	1	0	0	0	0	1	(1)
Pinto	0	2	0	0	0	1	3	(3)
Vega	0	2	0	0	0	1	3	(3)
COMPACTS	12	22	0	3	0	1	38	(23)
Apollo	1	2	0	0	0	0	3	(0)
Comet	1	2	0	0	0	0	3	(3)
Dart	2	2	0	2	0	0	6	(6)
Hornet	1	2	0	0	0	1	4	(3)
Maverick	1	2	0	0	0	0	3	(3)
Nova	2	4	0	0	0	0	6	(2)
Omega	1	2	0	0	0	0	3	(0)
Valiant	1	2	0	1	0	0	4	(4)
Ventura	2	4	0	0	0	0	6	(2)
INTERMEDIATES	21	17	0	13	0	34	85	(81)
Century	2	3	0	0	0	4	9	(10)
Chevelle	3	3	0	0	0	10	16	(10)
Coronet-Charger	2	2	0	1	0	5	10	(10)
Cutlass	2	3	0	0	0	2	7	(11)
LeMans	3	4	0	0	0	2	9	(8)
Matador	1	0	0	1	0	1	3	(3)
Montego	3	0	0	4	0	2	9	(9)
Satellite	2	2	0	2	0	5	11	(11)
Torino	3	0	0	5	0	3	11	(9)
STANDARD SIZE	33	0	31	36	4	38	142	(156)
Ambassador	1	0	0	1	0	1	3	(6)
Buick	2	0	5	5	1	2	15	(16)
Cadillac	3	0	2	2	0	0	7	(7)
Chevrolet	3	0	2	3	1	6	15	(14)
Chrysler	4	0	4	3	0	2	13	(14)
Imperial	0	0	1	1	0	0	2	(2)
Dodge	3	0	2	3	0	5	13	(14)
Ford	4	0	3	3	0	6	16	(19)
Lincoln	2	0	0	2	0	0	4	(3)
Mercury	4	0	2	4	0	3	13	(15)
Oldsmobile	2	0	5	4	1	4	16	(13)
Plymouth	3	0	2	2	0	5	12	(16)
Pontiac	2	0	3	3	1	4	13	(17)
SPECIALTY CARS	0	12	0	15	5	0	32	(30)
Barracuda	0	0	0	2	0	0	2	(2)
Camaro	0	2	0	0	0	0	2	(1)
Challenger	0	0	0	1	0	0	1	(2)
Corvette	0	1	0	0	1	0	2	(2)
Cougar	0	0	0	2	2	0	4	(4)
Eldorado	0	1	0	0	1	0	2	(2)
Firebird	0	4	0	0	0	0	4	(4)
Grand Prix	0	1	0	0	0	0	1	(1)
Javelin	0	0	0	2	0	0	2	(2)
Mark IV	0	0	0	1	0	0	1	(1)
Monte Carlo	0	3	0	0	0	0	3	(1)
Mustang	0	0	0	4	1	0	5	(5)
Riviera	0	0	0	1	0	0	1	(1)
Thunderbird	0	0	0	1	0	0	1	(1)
Toronado	0	0	0	1	0	0	1	(1)
Current '73 Totals	66	56	31	67	9	75	304	(297)
'72 Totals (End of Model Year)	62	28	38	86	17	66		297

SECTION 3

ANALYSIS RESULTS

This section presents the overall results of the study analysis. Due to the nature of the subject, the results are necessarily presented graphically, to illustrate historical variations in passenger car weight and selected ancillary characteristics as a function of time. In general, the curves are self-explanatory and require little discussion.

The following subsections segregate the study results into the general areas of:

a. Passenger car sales distributions
b. Curb weight trends
c. Sales-weighted weight trends
d. Dimensional trends
e. Engine displacement and compression ratio trends
f. Accessory weight trends

At the conclusion of each subsection, brief comments pertinent to the material illustrated are presented.

As will be noted, the variation with time of many of the parameters will be wide, with no apparent reason for the variation. In some cases, the variation is due to model changes that shift the balance in market class mix and sales distributions. For the specialty car market class, for example, the fact that it encompasses both small and large high-performance sports-car models makes it extremely difficult to completely define the reasons for the trends noted.

Therefore, the data are presented with a minimum of discussion; where possible, meaningful trends or discontinuities are addressed.

Tables of sales-weighted values for all the parameters examined are given in Appendix B.

3.1 PASSENGER CAR SALES DISTRIBUTIONS

3.1.1 Total U.S. Car Sales

The total passenger car sales (as evidenced by registrations) per year in the U.S. in the period 1947 through 1973 are shown in Figure 3-1. Also shown are the corresponding sales values for cars manufactured by domestic and foreign corporations. The percent sales split between domestic and foreign automakers is depicted in Figure 3-2.

The generally-rising-with-time sales characteristic of Figure 3-1 is interrupted in 1970 due to the General Motors strike during that period. As can be noted in Figure 3-2, the rapid increase in import car sales from 1962 to 1970, when sales were essentially tripled, leveled off in the 1970-72 period to approximately 15% of the total U.S. passenger car market. However, import sales rose again in 1973 to approximately 15.5% of total U.S. sales.

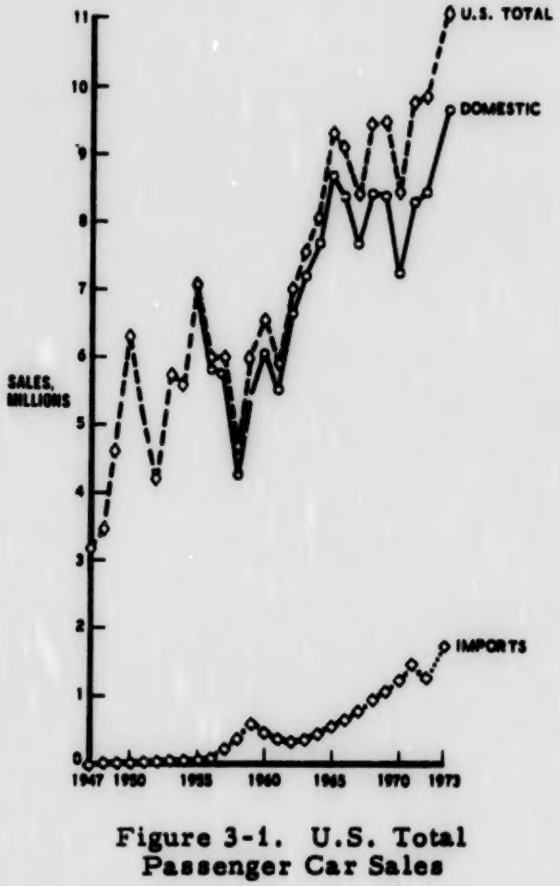

Figure 3-1. U.S. Total Passenger Car Sales

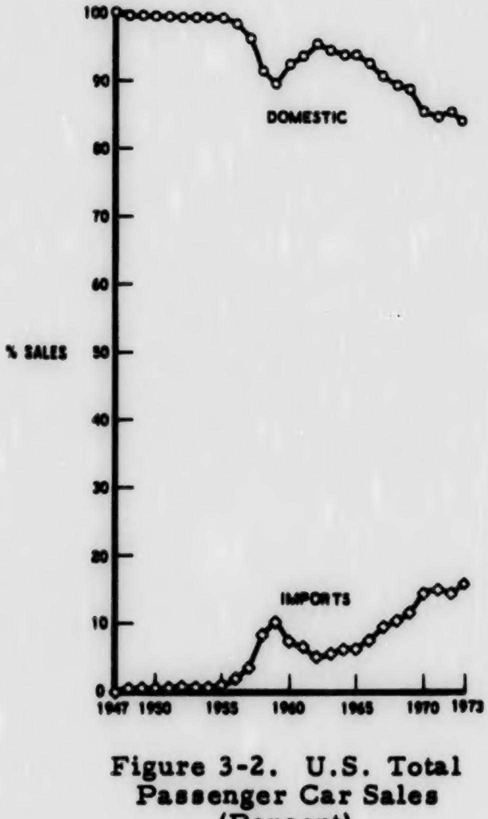

Figure 3-2. U.S. Total Passenger Car Sales (Percent)

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3.1.2 U.S. Sales Breakdown

The breakdown of U.S. passenger car sales by market class is shown in Figures 3-3 and 3-4 in terms of sales volume and percent of total sales, respectively. Although the market class percentage mix varies considerably over the 16-year period shown, the decrease in the share of the market occupied by the standard size car is dramatic; the other market classes have risen proportionally, with the subcompact class showing the most significant gains in recent years. In 1958, approximately 90% of all U.S. passenger cars were of the standard size class.

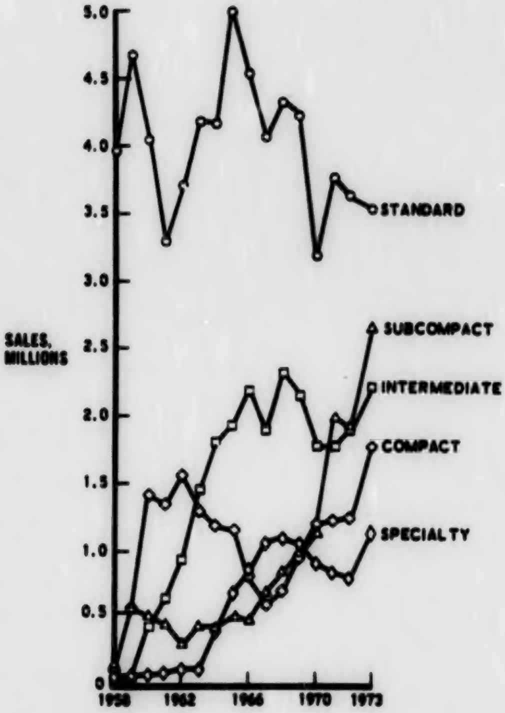


Figure 3-3. Passenger Car Sales by Market Class

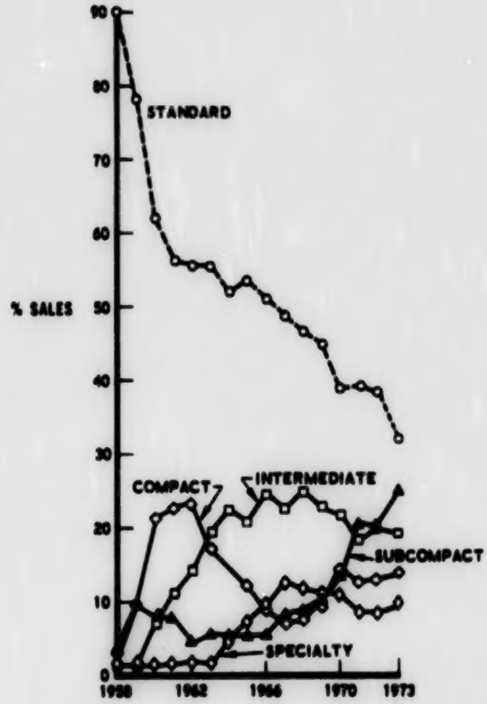


Figure 3-4. Passenger Car Sales by Market Class (Percent)

Figures 3-5 and 3-6 show monthly sales variations by market class for calendar year 1973. Figure 3-5 illustrates month-to-month sales variations and Figure 3-6 the cumulative variation by month throughout the year. As can be noted, the sales distribution by market class remained relatively constant throughout the year. The decline in sales of the standard size class was evident at the beginning of the year, as was the attendant general increase in percentage sales of the subcompact, compact, and specialty car classes. The intermediate size class change from 1972 to 1973 (and throughout 1973) was quite small.

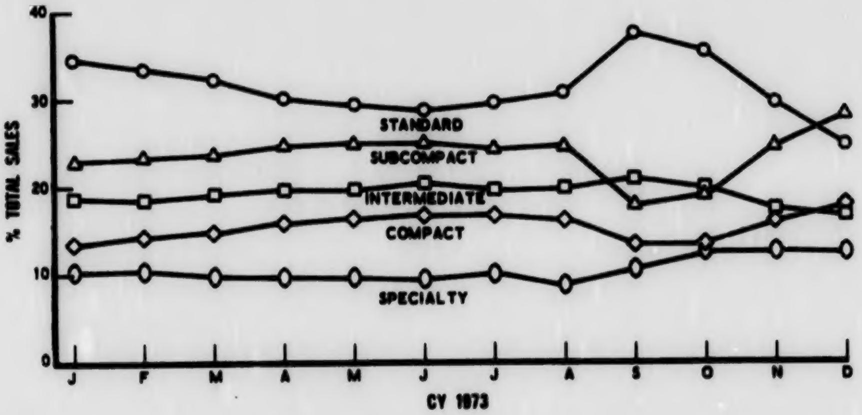


Figure 3-5. 1973 Sales by Market Class (Monthly)

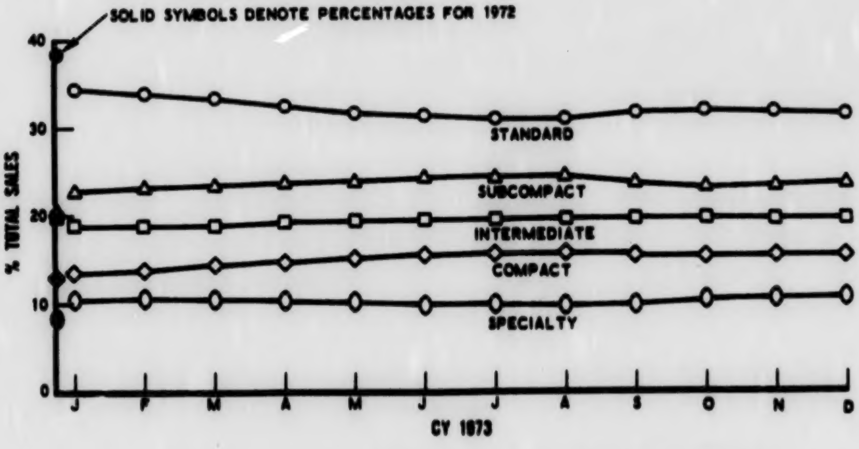


Figure 3-6. 1973 Sales by Market Class
(Cumulative Total by Month)

Figures 3-7 and 3-8 depict the share of the market attributed to major domestic corporations and the total of foreign manufacturers, again in terms of sales volume and percent of total sales . As can be seen, the percent of the market occupied by each domestic corporation has been relatively constant over a prolonged period of time.

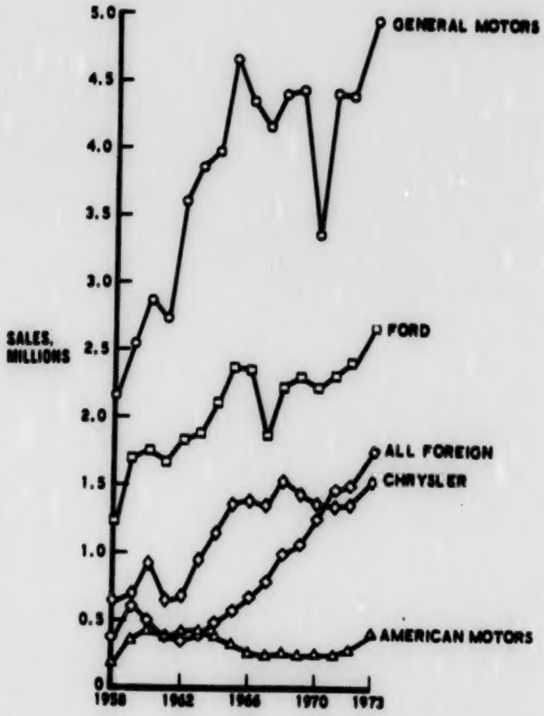


Figure 3-7. Passenger Car Sales by Corporation

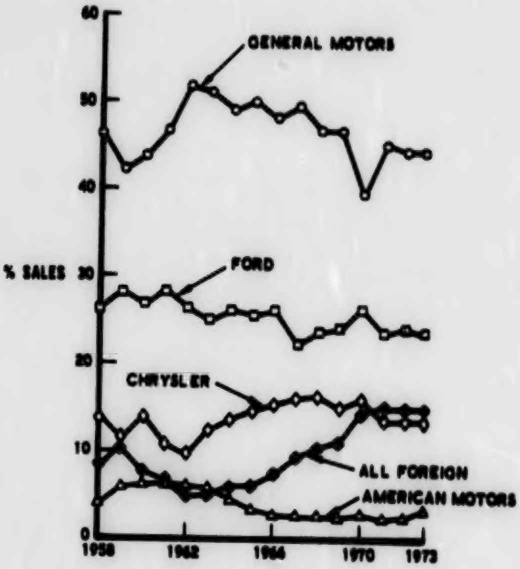


Figure 3-8. Passenger Car Sales by Corporation (Percent)

Tables 3-1 and 3-2 and Figures 3-9 and 3-10 provide a finer breakdown of sales by corporation and by nameplate for the year 1972. Table 3-1 lists 1972 sales by domestic corporation and import nameplate, whereas Table 3-2 lists all sales by nameplate. In both cases, the largest producers are counted first, and the cumulative U. S. total sales percentage developed accordingly. Figures 3-9 and 3-10 present the same information graphically.

As can be noted, the four domestic corporations had 85.4% of the total U.S. passenger car sales in 1972. Adding Volkswagen, Datsun, and Toyota to this group accounts for 94.3% of the total sales. The four domestics plus the top ten imports account for 97.95% of the total 1972 sales.

Table 3-1. 1972 Sales by Corporation

CORP.	SALES/YEAR	% U.S. SALES	CUM. % U.S. SALES
GM	4,366,536	44.4	44.4
FORD	2,398,839	24.4	68.8
CHRYS.	1,357,061	13.8	82.6
V-W	447,313	4.5	87.1
AMC	278,317	2.8	90.0
TOYOTA	257,078	2.6	92.6
OTHER IMPORTS	194,320	2.0	94.6
DATSUN	172,882	1.8	96.3
CAPRI	80,628	0.8	97.1
OPEL	60,473	0.6	97.8
FIAT	51,911	0.5	98.3
VOLVO	47,804	0.5	98.8
MAZDA	47,495	0.5	99.3
M-B	37,564	0.4	99.6
COLT	30,989	0.3	99.95
CHECKER & MISC.	5,065	0.05	100.0

Table 3-2. 1972 Sales by Nameplate

NAMEPLATE	SALES/YR	% U.S. SALES	CUM. % U.S. SALES
CHEVROLET	2,151,076	21.9	21.9
FORD	1,935,676	19.7	41.6
OLDSMOBILE	690,526	7.0	48.6
PONTIAC	672,499	6.8	55.4
PLYMOUTH	656,756	6.7	62.1
BUICK	609,414	6.2	68.3
DODGE	520,467	5.3	73.6
V-W	447,313	4.5	78.1
MERCURY	373,662	3.8	81.9
AMC	278,317	2.8	84.8
TOYOTA	257,098	2.6	87.4
CADILLAC	243,021	2.5	89.8
OTHER IMPORTS	194,320	2.0	91.8
CHRYSLER	179,838	1.8	93.7
DATSUN	172,882	1.8	95.4
LINCOLN	89,521	0.9	96.3
CAPRI	80,628	0.8	97.1
OPEL	60,473	0.6	97.8
FIAT	51,911	0.5	98.3
VOLVO	47,804	0.5	98.8
MAZDA	47,495	0.5	99.3
MERCEDES-BENZ	37,564	0.4	99.6
COLT	30,989	0.3	99.95
CHECKER	4,865	0.05	99.998
MISC. DOMESTIC	200	0.002	100.0

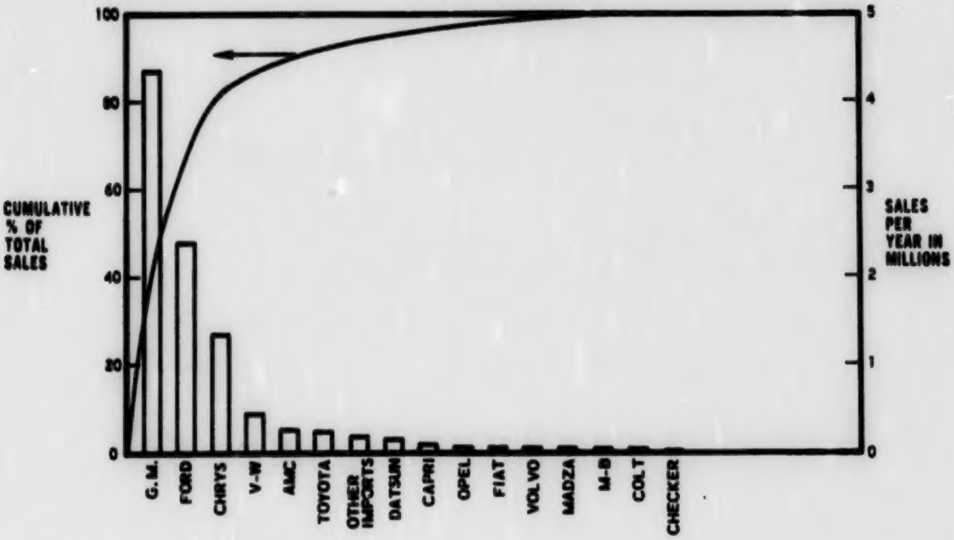


Figure 3-9. 1972 U.S. Sales by Corporation

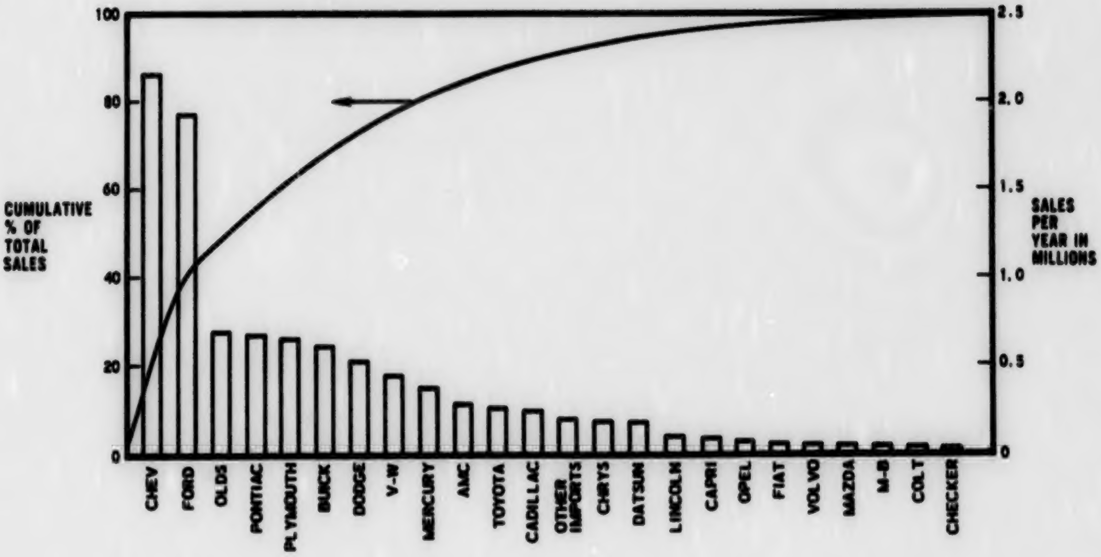


Figure 3-10. 1972 U.S. Sales by Nameplate

3.1.3 General Motors Corporation Sales Breakdown

The breakdown of General Motors passenger car sales by market class is shown in Figure 3-11. The dominance of the standard size car is apparent. General Motors' first subcompact, the Chevrolet Vega, entered the field in 1970.

Figure 3-12 gives the sales distribution between General Motors' various automotive divisions, in terms of percent of total General Motors sales. As can be seen, about half of General Motors' current sales are made by the Chevrolet division.

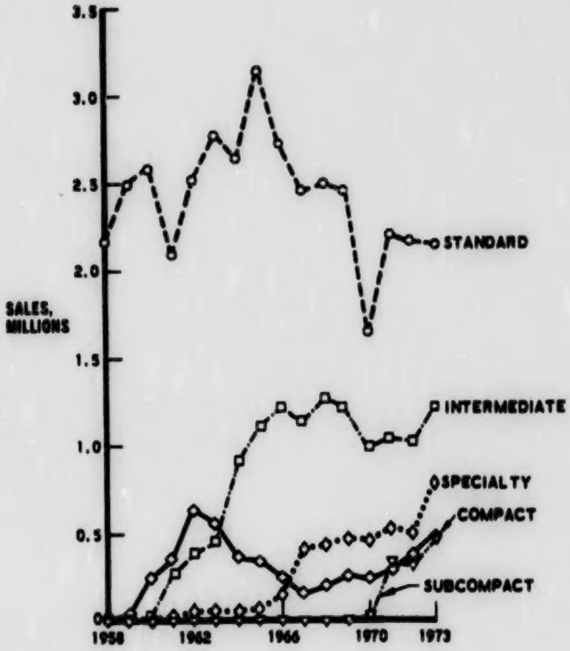


Figure 3-11. General Motors Sales by Market Class

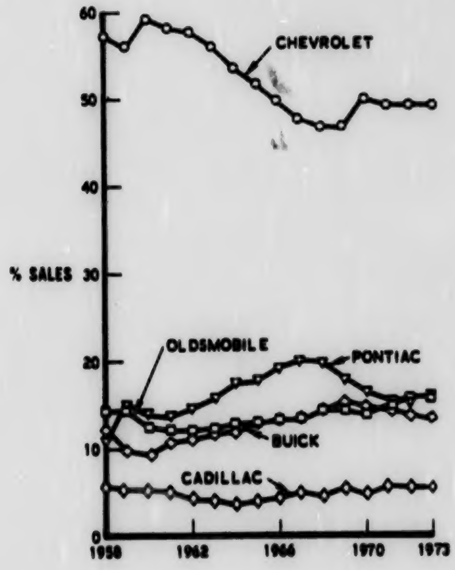


Figure 3-12. General Motors Sales by Division

3.1.4 Ford Motor Company Sales Breakdown

The distribution of Ford Motor Company sales by market class is given in Figure 3-13. The standard size car is the sales leader, but has a lesser percentage of the Ford sales than in the case of General Motors (Figure 3-11). Also evident is the steady rise in subcompact (Pinto) sales after its introduction.

Ford sales distribution among its three automotive divisions is illustrated in Figure 3-14.

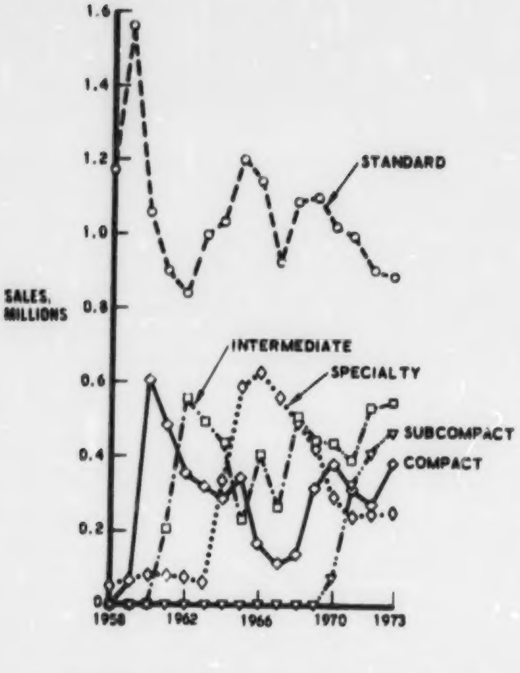


Figure 3-13. Ford Motor Co. Sales by Market Class

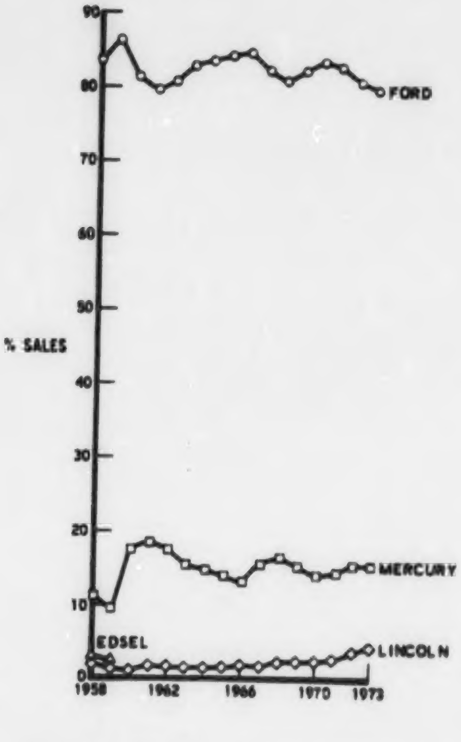


Figure 3-14. Ford Motor Co. Sales by Division

3.1.5 Chrysler Corporation Sales Breakdown

Sales by market class for the Chrysler Corporation are shown in Figure 3-15. The steadily increasing sales of the compact class is dramatic: in 1973, compact sales essentially equaled standard size car sales. Chrysler has no domestically produced entry in the subcompact class. It does market foreign-manufactured subcompacts (Colt, Cricket), which are covered as import sales.

Chrysler sales distribution by automotive division is shown in Figure 3-16.

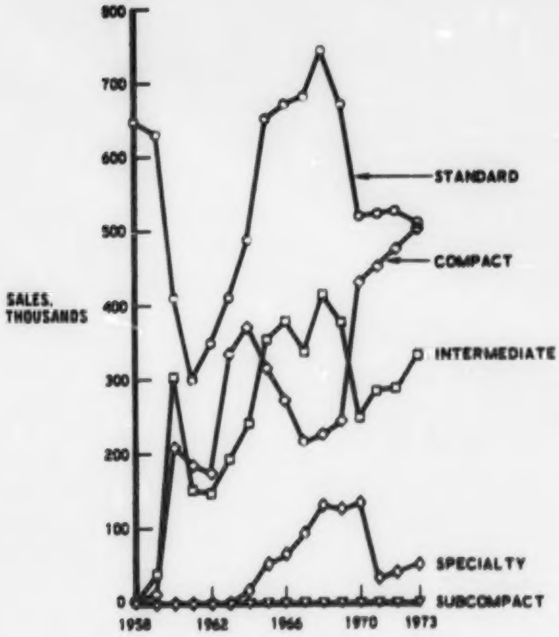


Figure 3-15. Chrysler Corp. Sales by Market Class

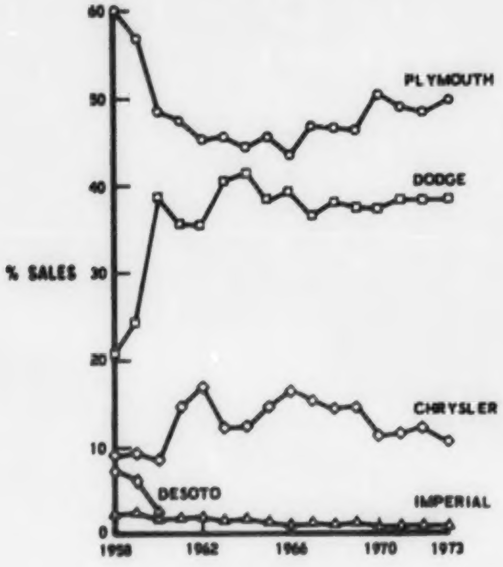


Figure 3-16. Chrysler Corp. Sales by Division

3.1.6 American Motors Corporation Sales Breakdown

The distribution of American Motors sales by market class is shown in Figure 3-17. Until 1971, American Motors' largest passenger cars were not classified as being standard size because their wheelbase was shorter than that defined as standard. The rather dramatic fall and rise of compact and intermediate sales, respectively, in 1962-64 is merely the result of a change in model designs and mix offered for sale. Whereas American Motors earlier limited itself exclusively to the smaller market classes, it now competes in all market classes.

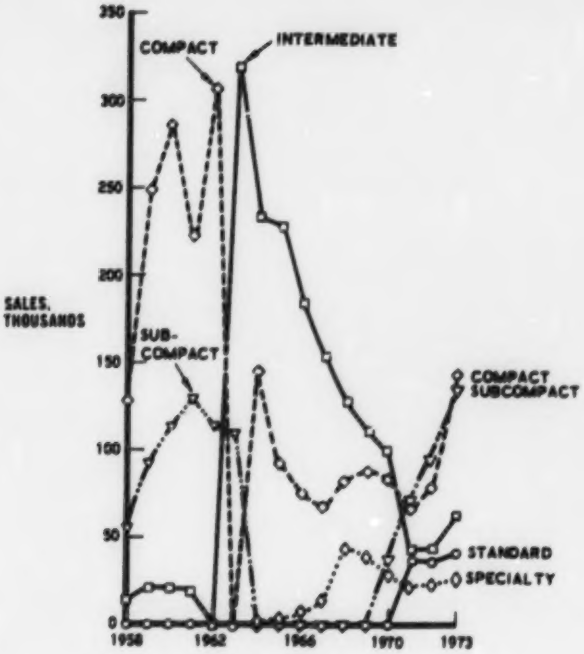


Figure 3-17. American Motors Corp. Sales by Market Class

3.1.7 Chevrolet Division Sales Breakdown

Sales by market class for the Chevrolet Division of General Motors are illustrated in Figure 3-18. Also shown, for each market class, are typical nameplates within the market class.

As shown, 1973 sales of standard size models are about one-half of similar sales in 1962-66. Compact sales (Chevy II, Corvair) peaked in 1962 and were about half that value in 1973. Intermediate sales (Chevelle), on the other hand, peaked in 1969 and have fallen off steadily since then. The specialty class, which includes such nameplates as Corvette, Camaro, and Monte Carlo, rose steadily in 1966-70, leveled off from 1970 to 1972, and increased sharply in 1973. Chevrolet's recent subcompact entry (Vega) has had a rapidly rising sales characteristic since its introduction in 1970.

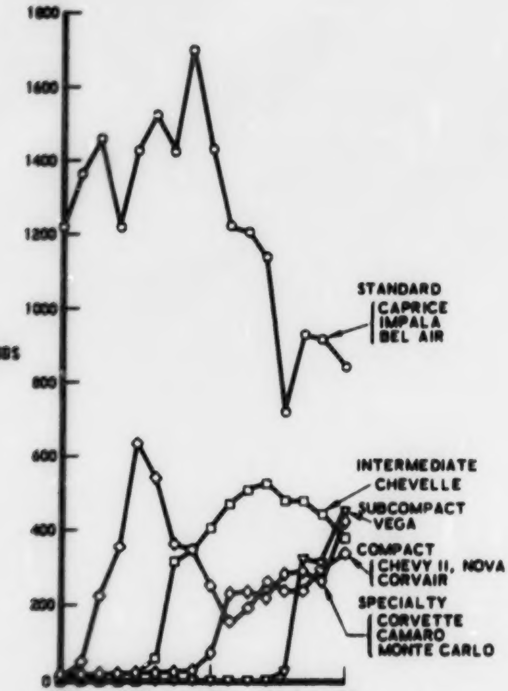


Figure 3-18. Chevrolet Division Sales by Market Class

3.1.8 Ford Division Sales Breakdown

Figure 3-19 shows similar market class sales data for the Ford Division of the Ford Motor Company; nameplates illustrate the market class.

Current (1973) standard size car sales are some 30% lower than 1958 values. Standard size car sales were sharply reduced in 1962 when both the compact (Falcon) and intermediate (Fairlane) classes had high sales values. The intermediate class (Torino) has since risen to a new sales peak in 1973, whereas the compact class (Maverick) sales in 1973 were approximately 58% of 1961 peak values.

The sharp peak in specialty car sales in 1966 was due to combined sales of the Mustang and Thunderbird models. In 1973, these combined sales were approximately 38% of peak 1966 sales and on a rising trend.

The Ford subcompact, Pinto, has exhibited a very steep increase in sales since its introduction in 1970.

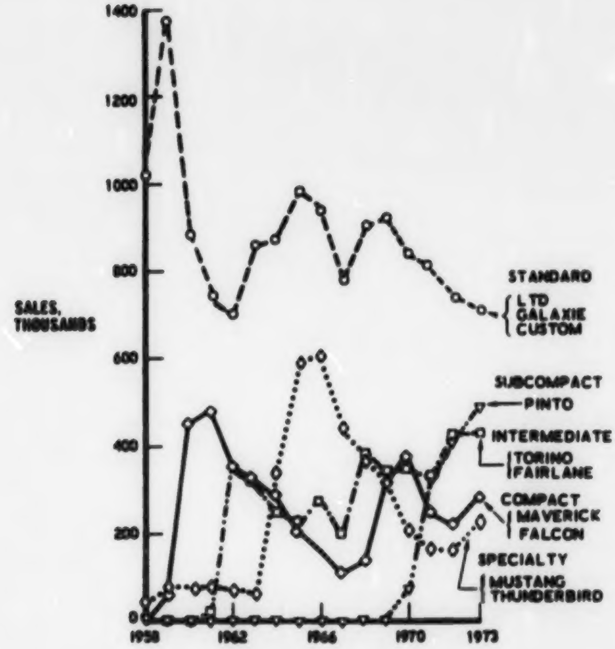


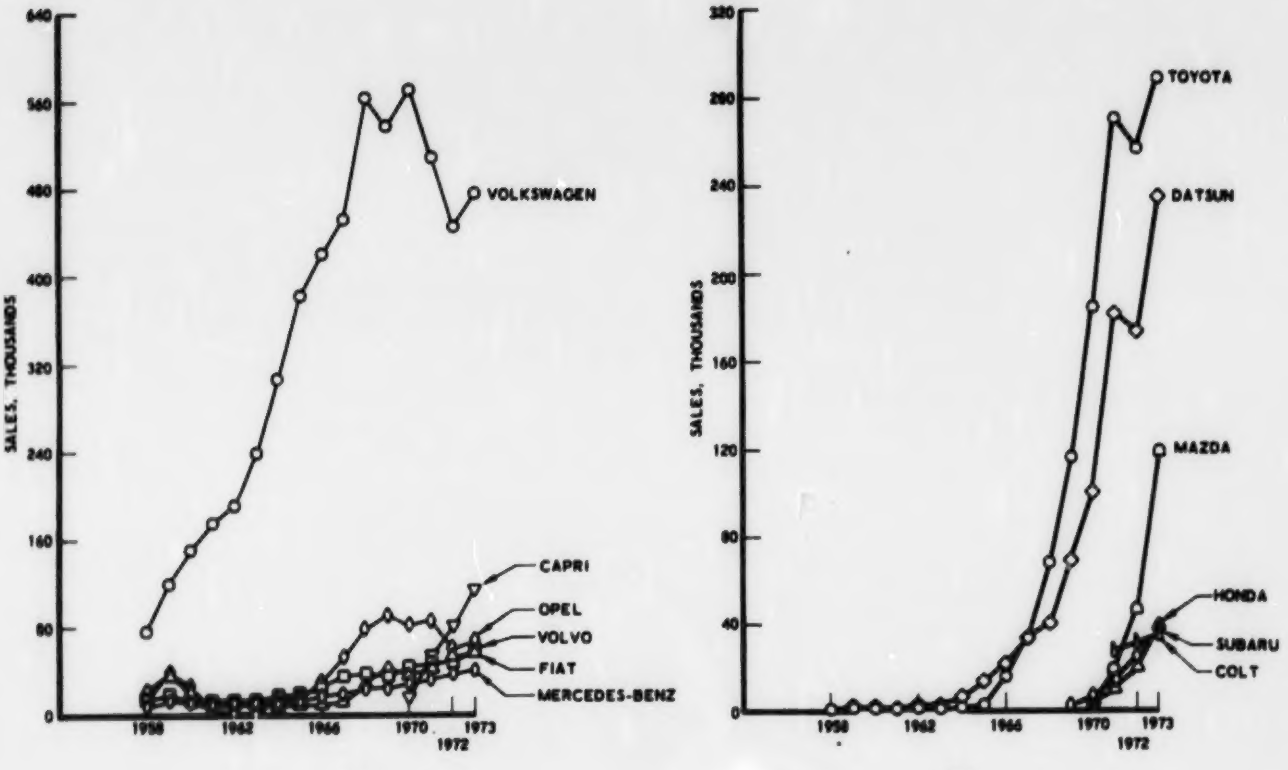
Figure 3-19. Ford Division Sales by Market Class

3.1.9 Import Sales Breakdown

The distribution of sales between leading European manufacturers is illustrated in Figure 3-20(a). It depicts the sharp rise in Volkswagen sales between 1958 and 1970; in this period, Volkswagen was the principal import car. However, Volkswagen sales declined in 1970-72, with sales rising again in 1973.

Figure 3-20(b) shows the rapidly increasing sales characteristics of the Toyota and Datsun cars, commencing in 1966. In combination, they exceeded Volkswagen sales in 1973.

Capri, Mazda, and Colt sales, while apparently increasing at a sizeable rate in 1973, do not approach the other sales leaders in sales volume. The total import sales in 1973 was approximately 1.75 million.



(a) (b)

Figure 3-20. Import Sales by Manufacturer:
(a) European, (b) Japanese

3.1.10 Comments on Passenger Car Sales Distributions

Figures 3-1 through 3-20 have summarized 16 years of passenger car sales information by a variety of display techniques and a number of methods. However, the following general comments are offered in overview to summarize the more significant factors.

a. Total yearly sales of passenger cars in the U.S. have risen from about 3.15 million in 1947 to 11.34 million in 1973. Sales have been increasing at an average rate of approximately 315,000 units per year over this 26-year period after World War II. Sales in any given year, however, can vary considerably from the norm due to general economic conditions, strikes, etc.

b. The General Motors strike in 1970 somewhat clouds definitive sales trends in the 1966-1973 period.

c. Compact car sales peaked in 1962 (25% of total sales) and in 1973 represented only approximately 15% of total sales.

d. Intermediate car sales peaked in 1968 (25% of total sales) and in 1973 represented approximately 20% of total sales.

e. Import car sales rose sharply from 1962 to 1970. Although sales volume continued to rise, the percent of total sales remained relatively constant (approximately 15%) from 1970 to 1973.

f. Total U.S. subcompact sales more than doubled in the 1966-72 period. Subcompacts, in 1973, were the second highest selling market class (approximately 23% of total sales).

g. The future sales trends of standard size cars are not clear. However, 1973 sales were much lower than 1965 peak values and represented only 31% of the total U.S. market.

3.2 CURB WEIGHT TRENDS - BY NAMEPLATE

3.2.1 Standard Size Cars

The variation in curb weight with time is illustrated in Figure 3-21 for a Chevrolet Impala and a Ford Galaxie 500 (from 1956 to 1962 these names were not used; values shown are for the comparable standard size car model offered). A marked and steady increase in curb weight is evident. Between 1956 and 1974 this increase amounted to approximately 1100 and 980 lb (33% and 29%) for the Chevrolet and Ford models, respectively. On an average basis, these values are equivalent to 61- and 54-lb per year increases.

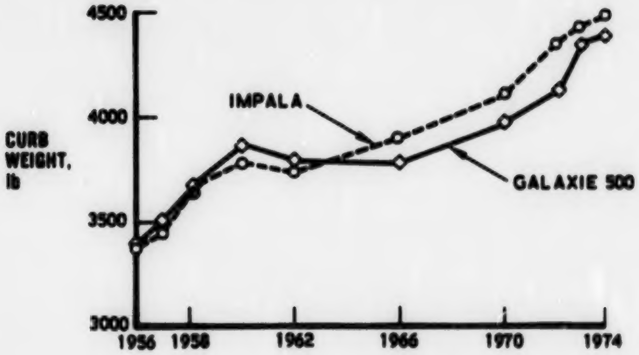


Figure 3-21. Passenger Car Curb Weight Trends by Nameplate (Standard)

3.2.2 Intermediate Size Cars

Chevelle and Fairlane/Torino models are used to illustrate typical intermediate class curb weight variations in Figure 3-22. Both models have similar time-varying characteristics, except for a slight deviation in 1972. From 1962 to 1974, the Fairlane/Torino model series increased approximately 1100 lb in curb weight (36%), or 83 lb per year over the 12-year period. The Chevelle increased curb weight 900 lb (28%) in 8 years, or an average of 113 lb per year during the period. It is interesting that the intermediate car of 1974 weighs about the same as the standard size car of the 1962-66 era.

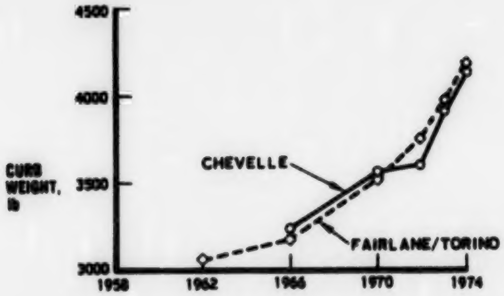


Figure 3-22. Passenger Car Curb Weight Trends by Nameplate (Intermediate)

3.2.3 Compact Size Cars

Figure 3-23 illustrates typical compact car curb weight variations; the Chevy II/Nova model series and the Valiant are the selected examples. Over the 12-year period shown, the Chevy II/Nova series increased curb weight by 940 lb (36%), while the Valiant increased curb weight by 620 lb (24%). These values are equivalent to average rates of 78 and 52 lb per year, respectively. A similar trend in growth occurs here. The compact car of 1974 is about the same weight as the intermediate car of 6 or 7 years ago.

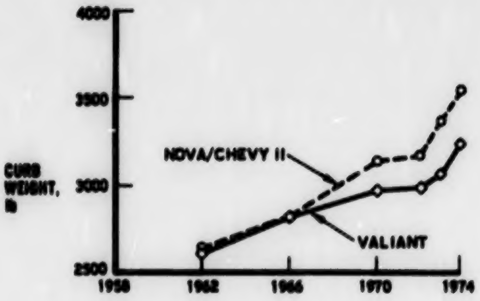


Figure 3-23. Passenger Car Curb
Weight Trends by Nameplate
(Compact)

3.2.4 Subcompact Size Cars

Available curb weight data for domestic subcompact models are illustrated in Figure 3-24. No U.S. manufacturer has produced a subcompact model over a long period of time. American Motors' Rambler American model was the first such domestic car and had only a minor curb weight increase over the period 1958 to 1962. When a new American Motors subcompact, the Gremlin, appeared in 1970, it was 100 lb heavier than the American and increased another 170 lb by 1974.

The Chevrolet Vega increased curb weight by approximately 260 lb (12%) in 1970-74; the Ford Pinto increased approximately 400 lb (19%) in the same period. If these growth rates continue, the subcompact of the future may weigh as much as the compact of today.

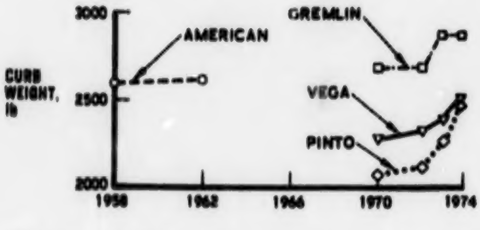


Figure 3-24. Passenger Car Curb
Weight Trends by Nameplate
(Subcompact)

3.2.5 Specialty Car Class

The curb weight variation with time of a single specialty car, the Ford Thunderbird, is illustrated in Figure 3-25. From 1958 to 1974, this four-seater model car increased 1220 lb in curb weight (32%), or 76 lb per year over the 16-year period, on the average. This is in addition to a 525-lb increase in curb weight between 1957 and 1958 when the Thunderbird was redesigned from a two-seater to a four-seater model.

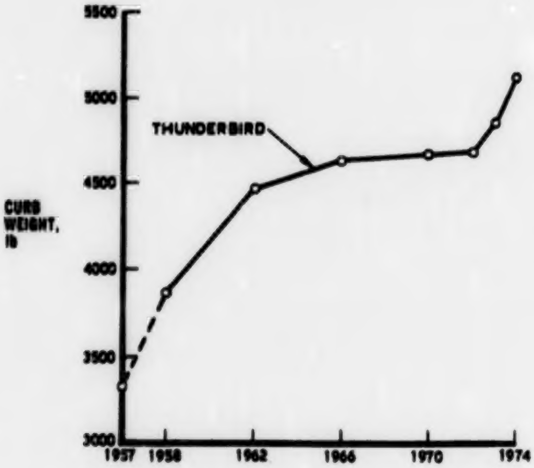


Figure 3-25. Passenger Car Curb Weight Trends by Nameplate (Specialty)

3.2.6 Imports

Figure 3-26 illustrates that import subcompacts also have increased curb weight with time. The Volkswagen increased curb weight 295 lb over 15 years (18%), or approximately 20 lb per year. The change in Toyota Corona curb weight from 1966 to 1973 is approximately 60 lb (3%), or 8.5 lb per year. The Datsun 410-510-1600 series models increased curb weight 500 lb (25%) over the 1966-74 interval, or approximately 62.5 lb per year.

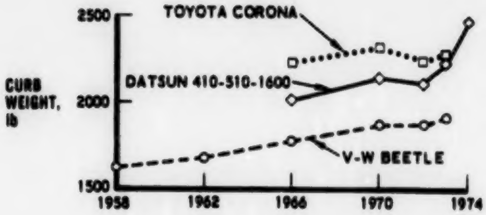

NOTE: CURB WEIGHT NOT AVAILABLE FOR 1974 V-W OR TOYOTA

Figure 3-26. Passenger Car Curb Weight Trends by Nameplate (Imports)

3.2.7 Comments on Nameplate Curb Weight Trends

The following overview comments summarize the curb weight trends illustrated in Figures 3-21 through 3-26.

a. Passenger cars in all market classes have shown a marked and steady increase in curb weight with time. This curb weight increase trend is independent of manufacturer.

b. For the time period through 1974, the standard, intermediate, compact, and subcompact size models increased in curb weight approximately 2 to 3% per year on an average basis for the years and models examined. The major imports (Volkswagen, Datsun, Toyota) leveled off in curb weight increases in 1970-73; Datsun, however, experienced a 400-lb (19%) increase from 1972 to 1974. The Volkswagen weight increase in 1970 was sufficient to move it up one inertia test weight class (to the 2250-lb level) for exhaust emission certification testing purposes.

c. Curb weight increases in the intermediate and compact classes have been high enough so that the intermediate car of 1974 weighs as much (approximately 4200 lb) as the standard size 1970 car, and the 1974 compact weighs as much (3300-3600 lb) as the 1966 to 1970 intermediate cars.

d. One specialty car, the Thunderbird, increased approximately 1220 lb in curb weight from 1958 to 1974. (There was an additional 525-lb increase in 1958 when the basic car was changed from a two-seater to a four-seater.)

3.3 SALES WEIGHTED WEIGHT TRENDS

3.3.1 Overall U.S. Passenger Cars

Figures 3-27 and 3-28 depict the variation of the sales-weighted average values of curb and inertia test weights, respectively, for the overall U.S. passenger car market from 1958 to 1973. The U.S. total market is further broken down to reflect the characteristics of both domestically produced cars and foreign-produced cars.

Both weights reached a minimum level in 1961-64 due to the peak sales of U.S.-built compact cars during the period, plus the generally rising level of intermediate-size car sales at the same time. Since then, both domestic and foreign passenger cars have exhibited increased-weight characteristics, reaching U.S. total values in 1973 that were nearly the same as in 1958; both the domestic-only and the foreign-only weight values were higher in 1973 than in 1958.

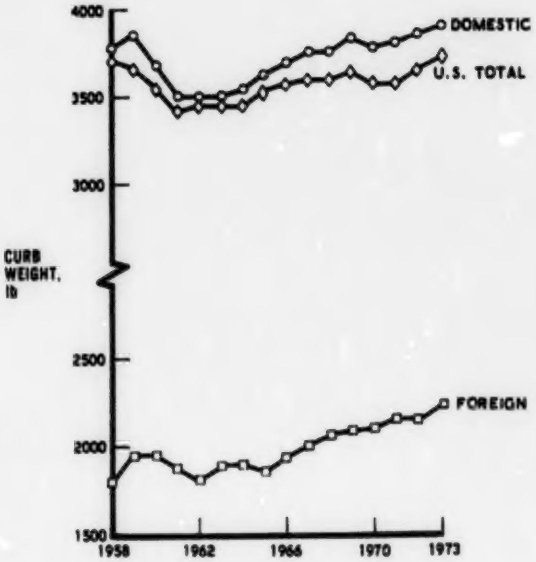


Figure 3-27. Passenger Car Curb Weight Trends (Sales Weighted)

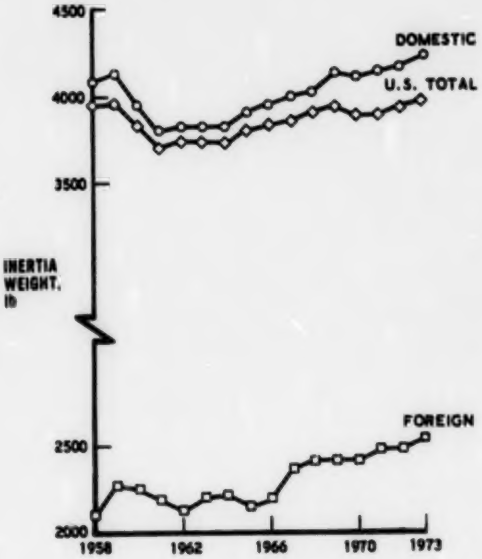


Figure 3-28. Passenger Car Inertia Weight Trends (Sales Weighted)

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3.3.2 U.S. Breakdown by Market Class

The variation of sales-weighted curb and inertia test weights for each market class is shown in Figures 3-29 and 3-30, based on total U.S. passenger car sales (domestic plus imports).

The standard-size car, on the average, has continually grown heavier over the 16-year period shown. Both compact and intermediate classes reached minimum values in 1960-62 due to the introduction of new lower-weight designs and models (Falcon, Corvair, Chevy II) at that time. Since then, both classes have steadily increased in weight.

The minimum in subcompact car sales-weighted weight in 1964 occurs because of heavy import sales (e.g., Volkswagen), with increasing values in the interim because of heavier import subcompacts, and the introduction in 1970 of heavier U.S.-built subcompacts (Gremlin, Pinto, Vega).

The sharp reduction in specialty class average weight (circa 1966) is due to the introduction of Mustangs, Camaros, etc. Since that time, additional heavier specialty car models have been introduced (Monte Carlo, etc.).

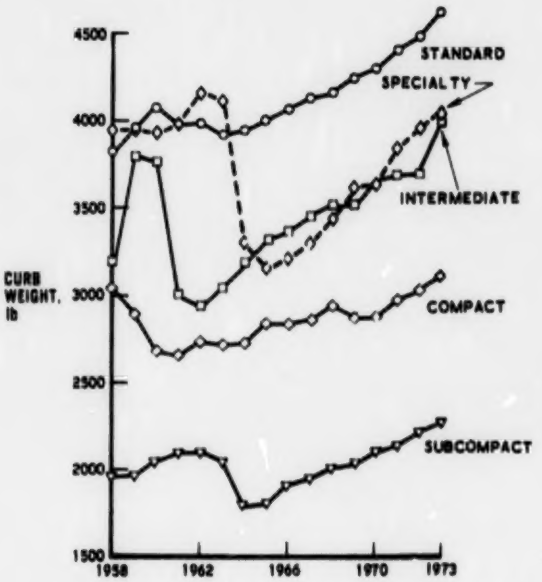


Figure 3-29. Curb Weight Variation by Market Class, U.S. Total (Sales Weighted)

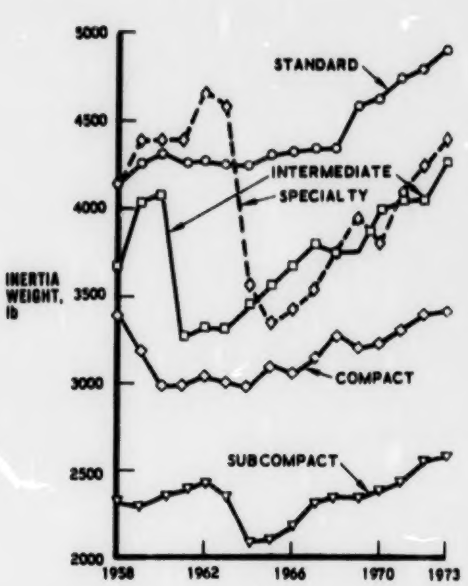


Figure 3-30. Inertia Weight Variation by Market Class, U.S. Total (Sales Weighted)

3.3.3 U.S. Breakdown by Corporation

Figures 3-31 and 3-32 illustrate the variation in sales-weighted curb and inertia test weights, both as a function of domestic corporations and of total imports.

The average weights of General Motors cars are the highest. This is a result of combined sales of standard size cars in a plurality of nameplates (Chevrolet, Pontiac, Oldsmobile, Buick, Cadillac). Both Ford and Chrysler are the next highest, at about the same numerical level. American Motors average weights are considerably below those of the other domestic corporations. As noted previously, American Motors cars have been exclusively oriented toward the smaller car market until very recently.

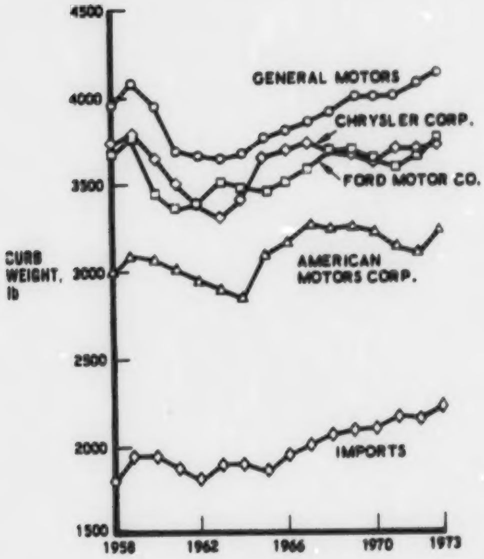


Figure 3-31. Curb Weight Variation by Corporation (Sales Weighted)

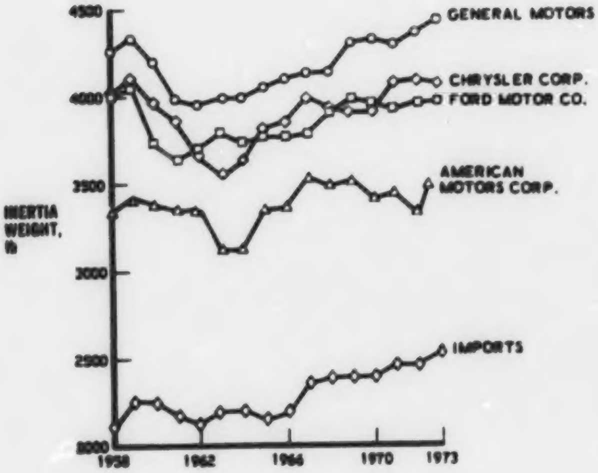


Figure 3-32. Inertia Weight Variation by Corporation (Sales Weighted)

3.3.4 General Motors Breakdown by Division

The distribution of sales-weighted curb weight among General Motors' five passenger-car divisions is given in Figure 3-33. As expected, Cadillac is the highest in curb weight and Chevrolet the lowest. Buick, Oldsmobile, and Pontiac group together at a level between Chevrolet and Cadillac.

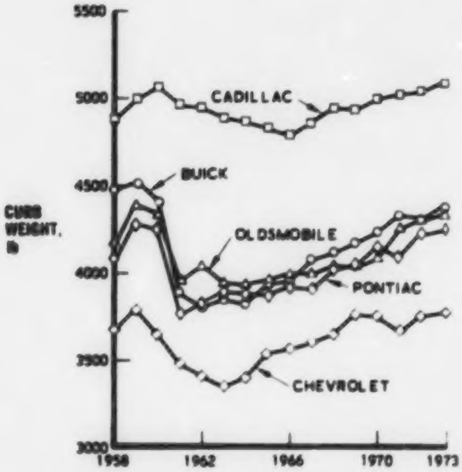


Figure 3-33. General Motors Curb Weight Variation by Division (Sales Weighted)

3.3.5 Ford Breakdown by Division

Figure 3-34 illustrates a similar divisional sales-weighted curb weight breakdown for the Ford Motor Co. Except for the 1961-64 minimum shown for Mercury, the curb weight rankings are as expected: Lincoln highest, Ford lowest, and Mercury in between. The Mercury 1961-64 minimum was the result of very high compact car sales (Mercury Comet) in proportion to overall Mercury sales for that period.

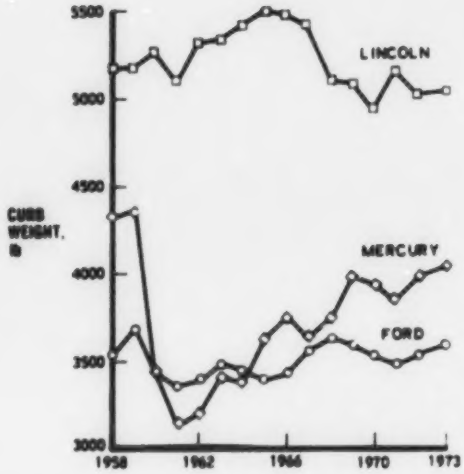


Figure 3-34. Ford Curb Weight Variation by Division (Sales Weighted)

3.3.6 Chrysler Breakdown by Division

The distribution of sales-weighted curb weight among the major car divisions of the Chrysler Corporation is given in Figure 3-35. As expected, Imperial and Chrysler are higher in curb weight, with Dodge and Plymouth at lower levels.

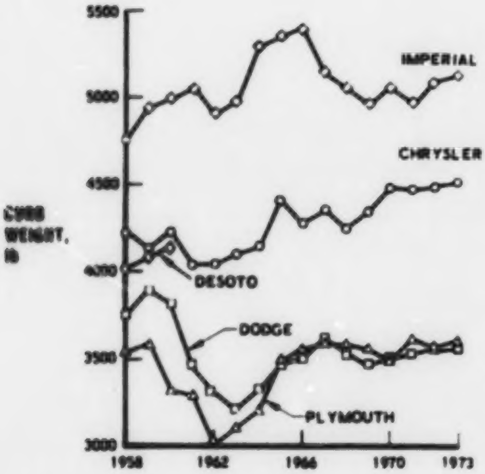


Figure 3-35. Chrysler Curb Weight Variation by Division (Sales Weighted)

3.3.7 Import Breakdown by Manufacturer

Figures 3-36 and 3-37 depict similar sales-weighted curb and inertia test weight breakdowns for various leading import passenger cars. Although some anomalies are evident, there is the general characteristic of weight increasing with time. The 1964-66 "lows" for Volvo and Opel represent the introduction of new, smaller models at that time. The Mercedes-Benz values represent a mix of market classes, but is predominantly a reflection of compact models. Volvo values also reflect the compact class, while the other manufacturers shown represent the subcompact class.

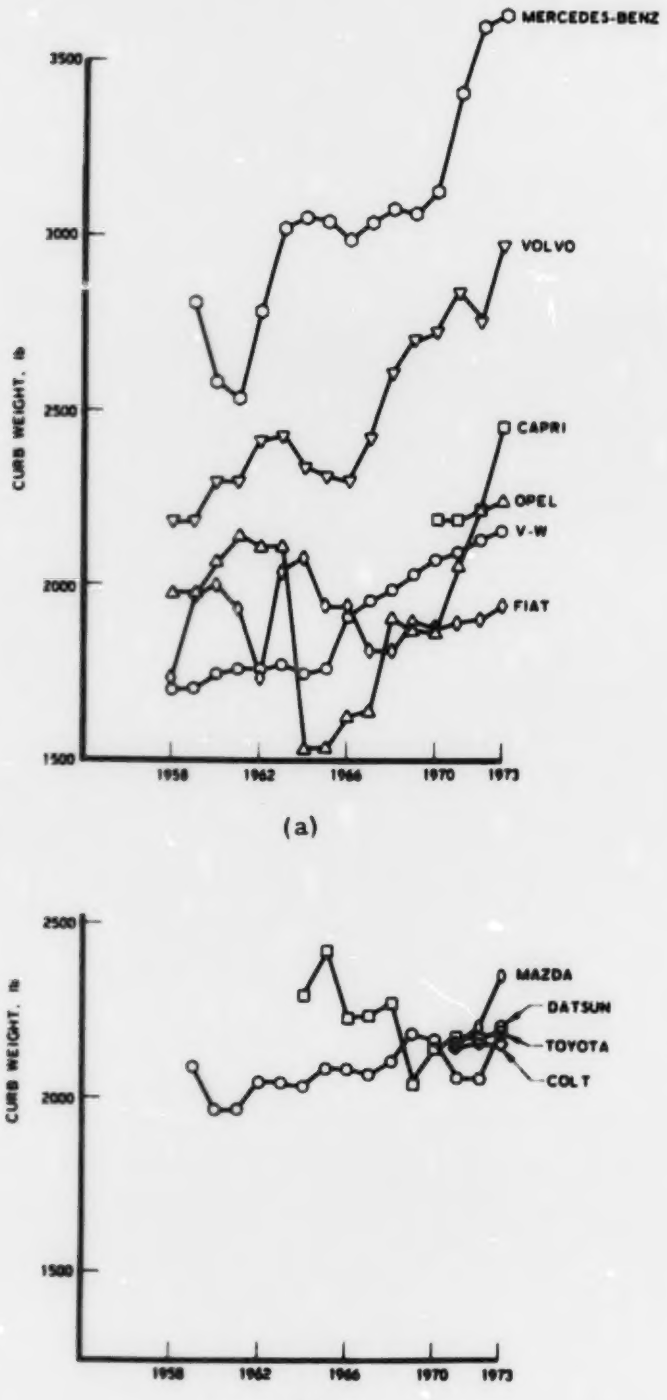


Figure 3-36. Import Curb Weight Variation by Manufacturer: (a) European, (b) Japanese (Sales Weighted)

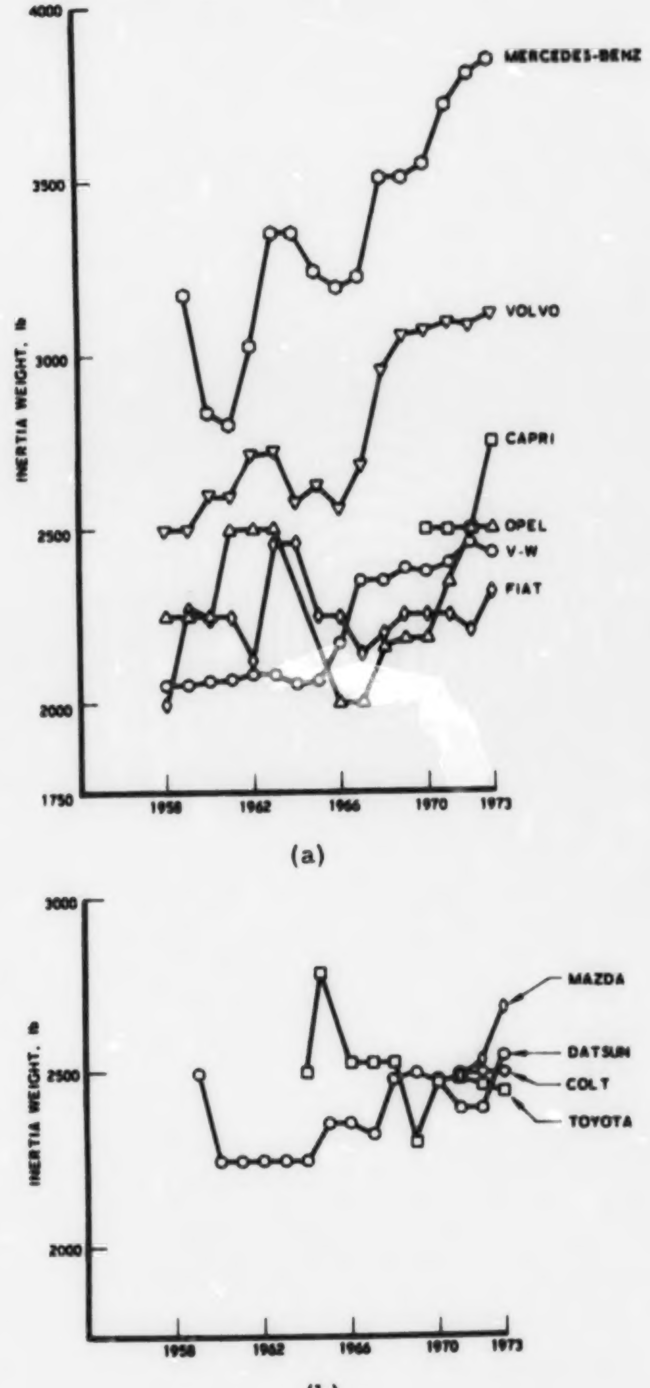


Figure 3-37. Import Inertia-Weight Variation by Manufacturer: (a) European, (b) Japanese (Sales Weighted)

3.3.8 Chevrolet Division Breakdown by Market Class

A breakdown by market class of the sales-weighted curb and inertia test weights of the Chevrolet division of General Motors is given in Figures 3-38 and 3-39. Typical nameplates for each market class are also illustrated. All Chevrolet market classes evidence curb weight increases with time. The rate of change of curb weight in the 1966-73 period is greater than prior to 1966.

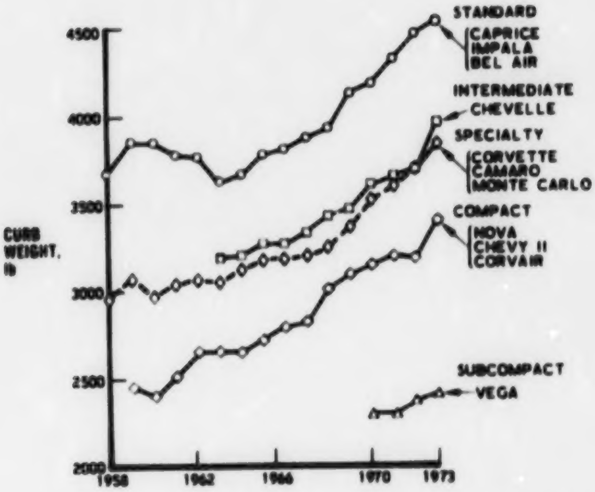


Figure 3-38. Chevrolet Curb Weight Variation by Market Class (Sales Weighted)

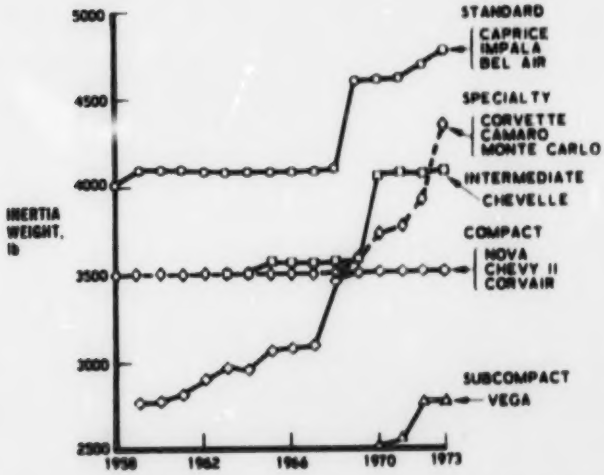


Figure 3-39. Chevrolet Inertia Weight Variation by Market Class (Sales Weighted)

3.3.9 Ford Division Breakdown by Market Class

A similar breakdown by market class of the sales-weighted curb and inertia test weights of the Ford division of the Ford Motor Company is shown in Figures 3-40 and 3-41. Nameplates are used to illustrate the market classes.

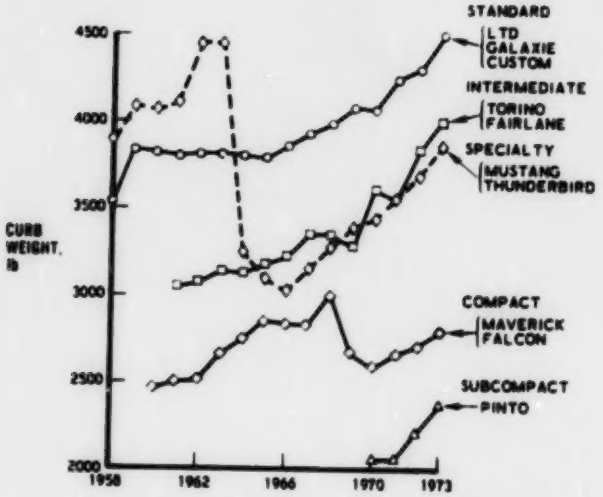


Figure 3-40 Ford Curb Weight Variation by Market Class (Sales Weighted)

Again, except for the compact class, there is a rapid increase in curb weight in 1966-73. In the compact case, the fall-off in curb weight is attributed to the changeover from the Falcon to the smaller Maverick in the compact class.

The big decrease in the specialty class weight in 1966 is due to the introduction of the Mustang and resultant high sales.

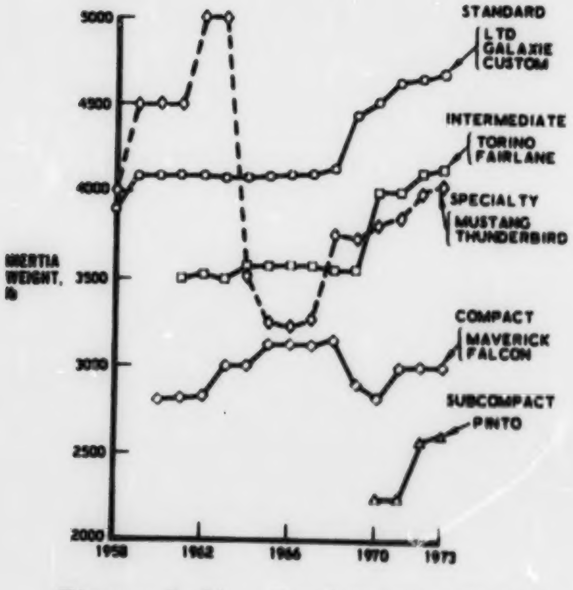


Figure 3-41. Ford Inertia Weight Variation by Market Class (Sales Weighted)

3.3.10 Overall U.S. Inertia Test Weight Matrix

Table 3-3 presents a matrix of the distribution of U.S. passenger car sales by inertia test weight class for the years 1958 to 1973. The distribution is shown in terms of specific sales and percent of total yearly sales for each inertia test weight class. Also shown is the yearly sales-weighted average inertia test weight value.

Weighted-average values were 3967 lb in 1958. They decreased in 1958-64, hitting a low-level plateau in 1961-64, the era of peak compact car sales. Since that time, inertia test weight averages have increased: 3941 lb in 1969, 3945 lb in 1972, and a new peak in 1973 of 3968 lb.

Table 3-3. Inertia Test Weight Matrix -- 1958 to 1973

MODEL YEAR	INERTIA WEIGHT CLASS, lb												
	1500	1750	2000	2250	2500	2750	3000	3500	4000	4500	5000	5500	WTD AVG
1958 SALES % M.Y. SALES		48,050 1.06	120,693 2.65	42,543 0.94	85,121 1.87	5,536 0.12	57,049 1.25	532,312 11.71	2,445,001 53.77	990,175 21.77	189,166 4.16	31,776 0.70	3967
1959 SALES % M.Y. SALES		104,963 1.75	146,336 2.44	88,187 1.47	123,628 2.06	158,137 2.64	261,720 4.37	260,110 4.34	3,097,502 51.71	1,292,235 21.57	282,918 4.73	174,346 2.91	3955
1960 SALES % M.Y. SALES		39,421 0.60	191,209 2.93	76,072 1.16	79,417 1.22	754,143 11.55	609,263 9.33	317,432 4.86	2,386,055 36.54	1,615,711 24.74	274,833 4.21	186,664 2.86	3836
1961 SALES % M.Y. SALES		34,459 0.59	180,663 3.10	50,160 0.86	49,408 0.85	821,355 14.09	806,657 13.84	348,949 5.98	2,009,015 34.46	1,259,873 21.61	208,510 3.58	60,776 1.04	3712
1962 SALES % M.Y. SALES		34,643 0.50	172,086 2.50	15,280 0.22	34,647 0.50	540,640 7.86	1,148,768 16.69	1,224,072 17.79	1,945,317 28.27	1,258,611 18.29	450,242 6.54	57,274 0.83	3743
1963 SALES % M.Y. SALES		17,886 0.24	220,554 2.93	48,657 0.64	34,775 0.46	275,554 3.66	1,625,904 21.59	1,184,224 15.73	2,142,194 28.45	1,534,053 20.37	395,651 5.26	50,546 0.67	3742
1964 SALES % M.Y. SALES		31,207 0.39	306,286 3.82	34,728 0.43	50,126 0.63	215,905 2.69	1,535,885 19.16	1,530,881 19.72	2,349,880 29.31	1,452,608 18.12	397,250 4.96	61,350 0.77	3726
1965 SALES % M.Y. SALES		26,817 0.29	367,624 3.95	54,159 0.58	47,888 0.52	40,883 0.44	1,399,305 15.05	2,038,890 21.93	2,764,338 29.73	1,929,771 20.76	562,989 6.06	63,878 0.69	3805

Table 3-3. Inertia Test Weight Matrix -- 1958 to 1973 (concluded)

MODEL YEAR	INERTIA WEIGHT CLASS, lb											
	1500	1750	2000	2250	2500	2750	3000	3500	4000	4500	5000	5500	WTD AVG
1966 SALES % M.Y. SALES		12,928 0.15	348,941 3.94	54,291 0.61	119,694 1.35	7,141 0.08	1,243,760 14.03	1,670,543 18.84	2,937,100 33.13	1,820,255 20.53	582,888 6.57	68,075 0.77	3831
1967 SALES % M.Y. SALES		23,549 0.28	70,539 0.85	411,648 4.95	165,281 1.99	17,985 0.22	807,546 9.70	1,429,730 17.17	3,162,212 37.98	1,489,572 17.89	696,033 8.36	51,102 0.61	3857
1968 SALES % M.Y. SALES		2,838 0.03	45,130 0.49	502,006 5.43	242,944 2.63	6,747 0.07	355,057 3.84	2,451,640 26.52	3,153,912 34.11	1,731,433 18.73	675,180 7.30	79,079 0.86	3863
1969 SALES % M.Y. SALES		14,297 0.15	110,989 1.18	527,071 5.61	204,579 2.18	288,577 3.07	297,357 3.17	2,211,140 23.53	1,525,303 16.23	3,133,006 33.34	995,609 10.60	88,157 0.94	3941
1970 SALES % M.Y. SALES		11,608 0.14	93,618 1.14	607,656 7.37	283,649 3.44	413,791 5.02	493,983 6.00	1,039,353 12.62	1,966,909 23.88	2,401,578 29.16	752,906 9.14	172,072 2.09	3876
1971 SALES % M.Y. SALES		20,137 0.21	85,801 0.90	845,210 8.82	704,981 7.36	228,034 2.38	525,782 5.49	1,134,842 11.84	1,900,573 19.84	2,545,073 26.56	1,243,617 12.98	347,075 3.62	3886
1972 SALES % M.Y. SALES		18,263 0.19	93,320 0.97	443,605 4.63	628,612 6.56	651,361 6.80	457,753 4.78	1,196,292 12.49	1,946,868 20.33	2,362,096 24.66	1,189,180 12.42	590,648 6.17	3942
1973 SALES % M.Y. SALES		33,939 0.30	144,659 1.28	496,242 4.38	649,859 5.73	1,071,646 9.45	654,610 5.77	1,338,828 11.81	1,385,037 12.21	2,886,430 25.45	1,906,646 16.81	771,669 6.81	3968

3.3.11 Comments on Sales-Weighted Weight Trends

Figures 3-27 through 3-41 and Table 3-3 have displayed passenger car curb and inertia test weight historical variations from 1958 to 1973. The following overview comments summarize the more significant variations over this time period.

a. The overall sales-weighted values of U. S. passenger car curb and inertia test weights dropped sharply in the 1960-64 period from 1958 values. This was due to the introduction of domestic compacts in 1960 and high sales of compacts and intermediates during the period.

b. There has been a steadily rising trend in sales-weighted weight values from 1962 to 1973. The overall sales-weighted inertia test weight average in 1973 is slightly above (3968 lb) the previous 1958 high of 3967 lb.

c. Curb and inertia test weight values for domestically produced passenger cars surpassed their 1958 levels in 1970 and appear to be on a still-rising trend.

d. Import cars exhibit a steady rise in curb and inertia test weights from 1958 to 1973.

e. The average standard-size car increased approximately 800 lb in curb weight from 1958 to 1973.

f. The sales-weighted average curb weight of General Motors cars are consistently about 300 lb higher than similar Ford and Chrysler values. On the other hand, the curb weights of American Motors cars average approximately 500 lb less than those of Ford and Chrysler.

g. Standard-size Chevrolet and Ford models increased approximately 800 lb in curb weight over the period 1958 to 1973.

h. Specialty car class weight trends are not discernible because of the mix of both small and large vehicles. The introduction of new and popular models (e. g., Mustang) can make large variations in weight for this particular class.

3.4 DIMENSIONAL TRENDS

3.4.1 Typical Wheelbase and Length Trends

Figures 3-42 through 3-46 depict typical wheelbase variations for the five passenger-car market classes, using nameplate examples within each class.

1970-74 wheelbase dimensions in the standard, 4-door intermediate, and compact classes represent sizable increases over pre-1966 levels. The intermediate class, depicted in Figure 3-43, shows that Ford and Chevrolet really have bifurcated the intermediate class by marketing the 2-door intermediate with a smaller (4 in. less) wheelbase than the 4-door model. 1974 4-door intermediate wheelbases (116-118 in.) are in the same range as 1956-58 standard size cars; the 1974 Nova compact wheelbase (Figure 3-44) (111 in.) is nearly the same as the Chevelle 2-door intermediate wheelbase (112 in.).

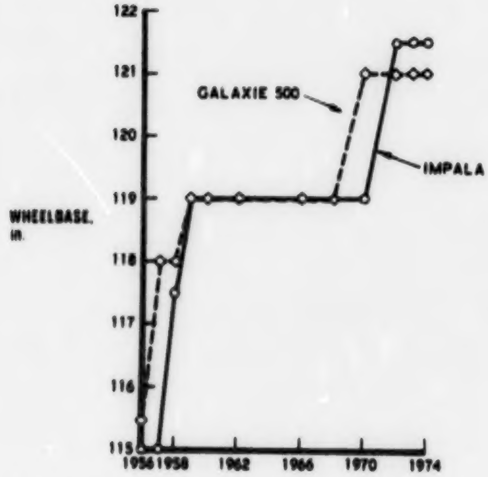


Figure 3-42. Standard Class Wheelbase Trends, Nameplate Examples

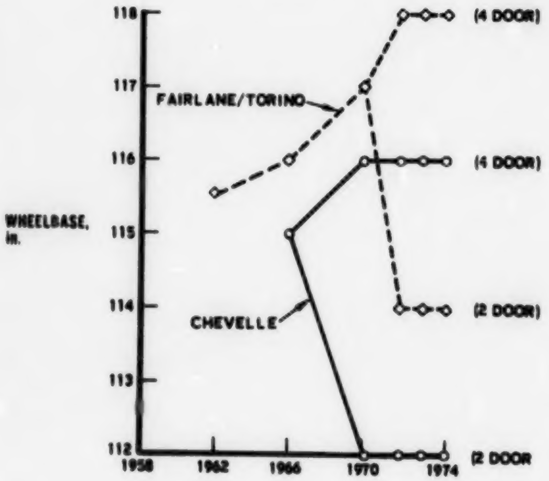


Figure 3-43. Intermediate Class Wheelbase Trends, Nameplate Examples

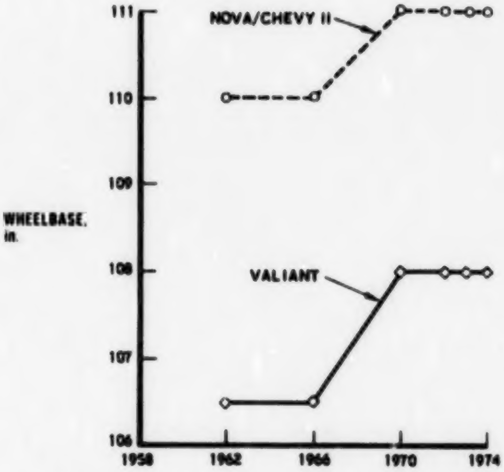


Figure 3-44. Compact Class Wheelbase Trends, Nameplate Examples

In the domestic subcompact class (Figure 3-45), no wheelbase changes have been made over the periods shown, although there is a sizable variation within the market class.

In the case of imports (Figure 3-46), both Datsun and Toyota have increased wheelbases in the 1970-74 period; whereas the Volkswagen Beetle is unchanged.

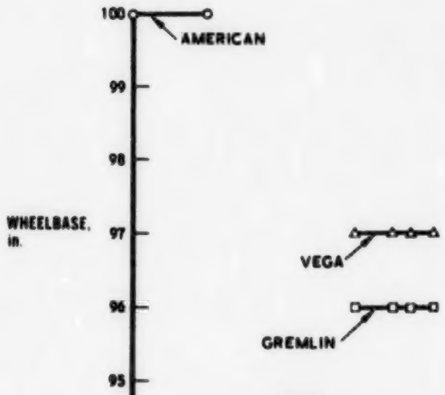
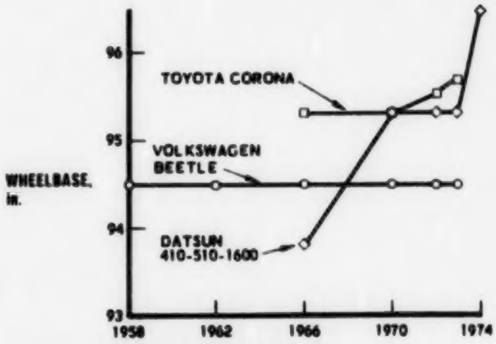


Figure 3-45. Domestic Subcompact Class Wheelbase Trends, Nameplate Examples



NOTE: V-W AND TOYOTA DATA NOT AVAILABLE FOR 1974

Figure 3-46. Import Subcompact Class Wheelbase Trends, Nameplate Examples

Figures 3-47 through 3-51 depict similar variations in overall passenger car length for the five market classes, again with the same nameplate examples for each class.

Standard-size cars (Figure 3-47) have historically increased in overall length with time. From 1957 to 1974, the full-size Chevrolet increased over 22 in. (11%), and the full-size Ford approximately 15 in. (7%). Since 1962, both have increased approximately 13 in. (6%) in overall length at a fairly uniform rate.

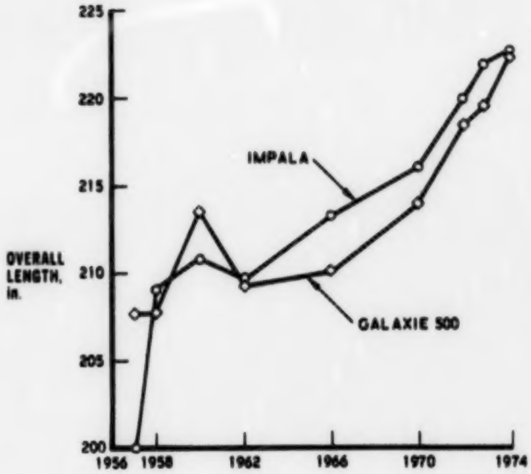


Figure 3-47. Standard Class Overall Length Trends, Nameplate Examples

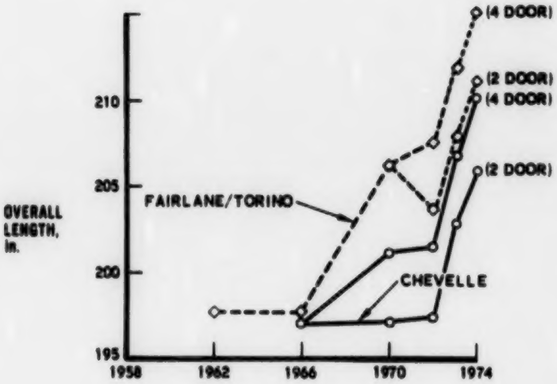


Figure 3-48. Intermediate Class Overall Length Trends, Nameplate Examples

The more recently introduced intermediate models (Figure 3-48) similarly exhibit overall length increases in the 1966-74 period. The Ford and Chevrolet 4-door models depicted grew approximately 17 and 14 in. (9 and 7%), respectively, in this time period, while the 2-door models were approximately 4 in. less in length growth. 1974 intermediate models are as long (206 to 215 in.) as the 1957-70 standard-size cars (200 to 216 in.).

In the compact class (Figure 3-49), overall length increases are also evident in the 1962-74 period (approximately 13 in. or 7%). 1974 compact models (~197 in.) are nearly as long as the 1962-66 intermediates (197 in.).

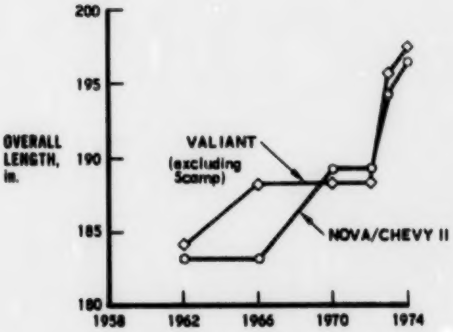


Figure 3-49. Compact Class Overall Length Trends, Nameplate Examples

The current domestic subcompacts (Figure 3-50) have increased 1974 model year overall lengths (from approximately 6 in. or 4% for the Pinto to approximately 9 in. or 6% for the Gremlin). The smaller imports (Figure 3-51) also have increased overall length from 1966 to 1973, except for the Volkswagen Beetle. 1973 increases in the Beetle overall length (from 1972 values) are still not sufficient to return it to pre-1970 levels. The Toyota model shown has grown approximately 9 in. (6%) in overall length from 1966 to 1973. The Datsun models shown have increased in length by approximately 13 in. (8%) in the 1966 to 1974 period.

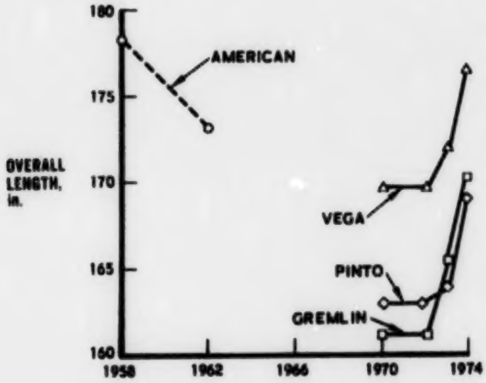
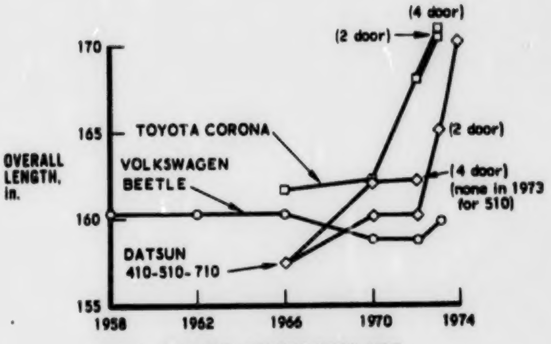


Figure 3-50. Domestic Subcompact Class Overall Length Trends, Nameplate Examples



NOTE: V-W AND TOYOTA DATA NOT AVAILABLE FOR 1974

Figure 3-51. Import Subcompact Class Overall Length Trends, Nameplate Examples

3.4.2 Sales Weighted Dimensional Trends

Figures 3-52 through 3-59 illustrate sales-weighted dimensional trends for the total U. S. passenger car market and for the various market classes.

In the case of wheelbase, Figure 3-52 shows that the total U. S. and domestic sales-weighted wheelbase values have decreased from 1958 to 1973, despite the increasing wheelbase by market class data shown in Figures 3-42 through 3-46. This sales-weighted characteristic results because of the shift in model sales distribution; the standard-size car was nearly the total market in 1958, but has been steadily decreasing in percent of total passenger car sales as the other market classes have made proportional increases in sales.

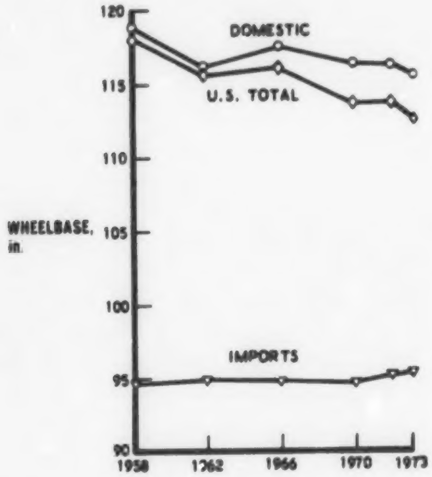


Figure 3-52. Wheelbase Trends, U.S. Total, Domestic, and Imports (Sales Weighted)

As shown in Figure 3-53, all market classes except the subcompact show 1973 sales-weighted wheelbases that are higher than 1962 values, a time period in which there were domestic models in all market classes (subcompact discontinued until 1970). When domestic subcompacts were reintroduced in 1970, they were of shorter wheelbase, but exhibited an increasing wheelbase trend in 1970-73.

The dimensional information shown in Figures 3-54 through 3-59 for overall width, overall length, and total overhang (overall length minus wheelbase) exhibits trends somewhat similar to those described above for the wheelbase dimension. In all cases, the sharply reduced sales-weighted dimensions in 1966 for the specialty car class are due to the high volume of sales of the Mustang and similar car models (Camaro, etc.).

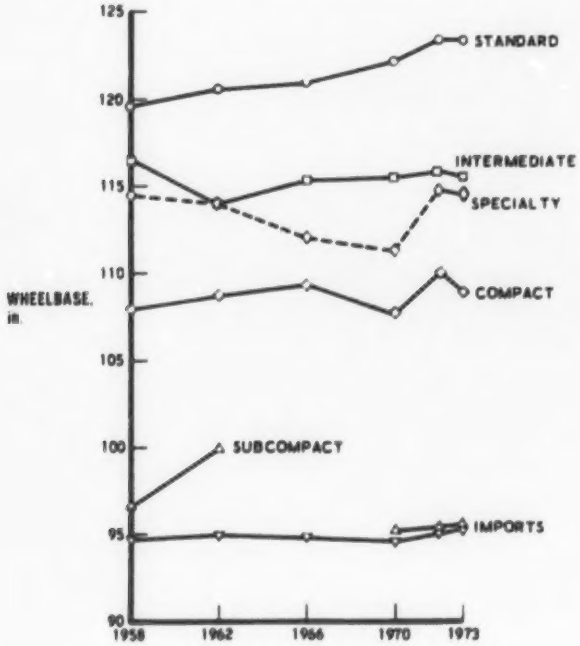


Figure 3-53. Wheelbase Trends by Domestic Market Class and Total Imports (Sales Weighted)

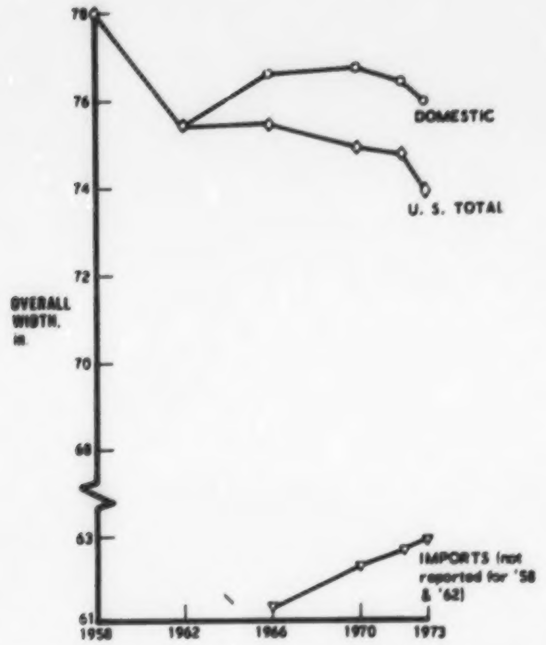


Figure 3-54. Overall Width Trends, U.S. Total, Domestic, and Imports (Sales Weighted)

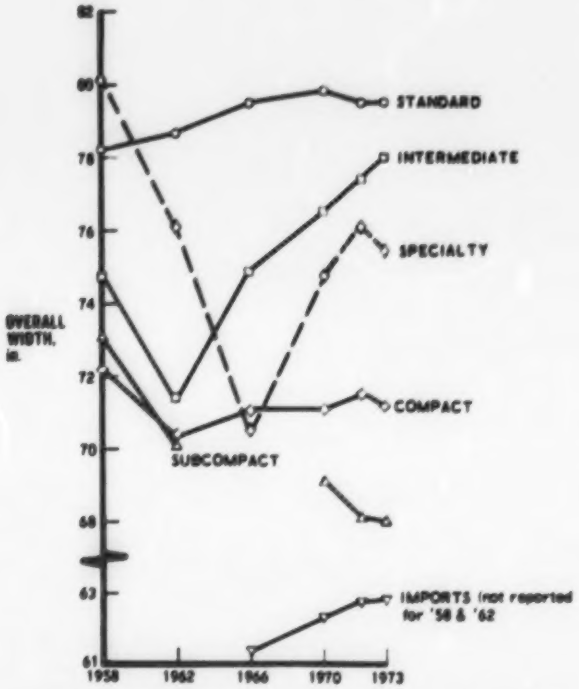


Figure 3-55. Overall Width Trends by Domestic Market Class and Total Imports (Sales Weighted)

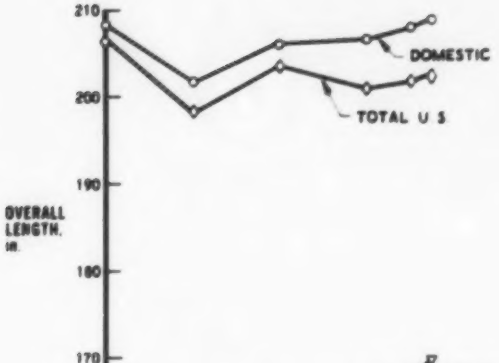


Figure 3-56. Overall Length Trends, U.S. Total, Domestic, and Imports (Sales Weighted)

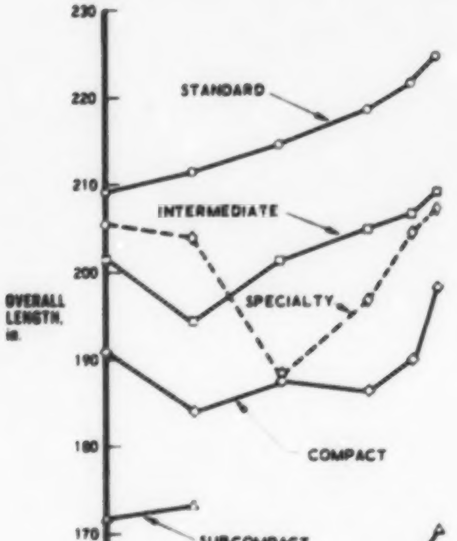


Figure 3-57. Overall Length Trends by Domestic Market Class and Total Imports (Sales Weighted)

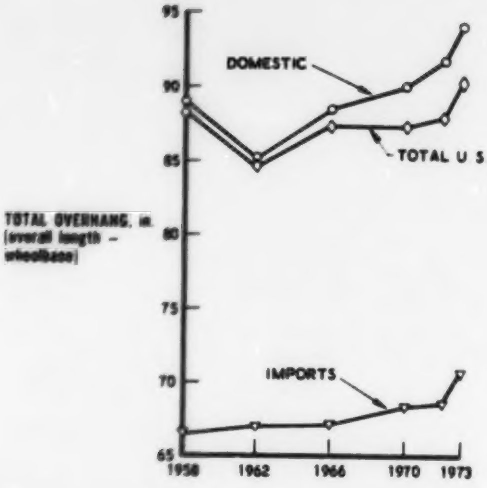


Figure 3-58. Total Overhang Trends, U.S. Total, Domestic, and Imports (Sales Weighted)

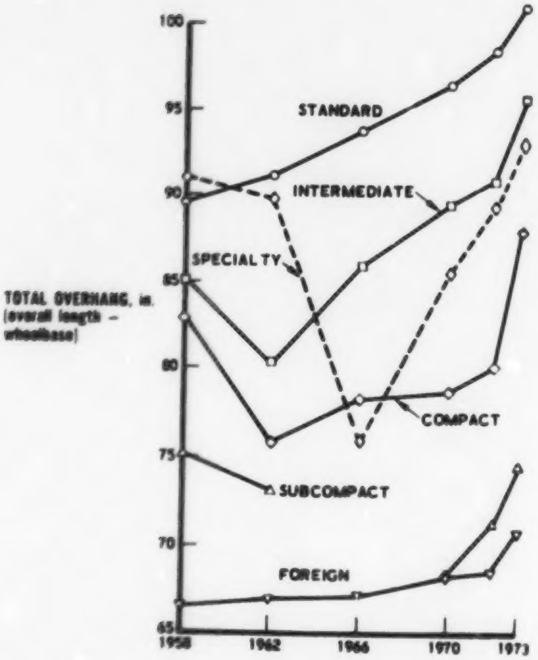


Figure 3-59. Total Overhang Trends by Domestic Market Class and Total Imports (Sales Weighted)

3.4.3 Comments on Dimensional Trends

The following overview comments summarize the more significant dimensional trends from 1958 to 1974 as shown in Figures 3-42 through 3-59.

a. Standard-size Fords and Chevrolets have increased wheelbase approximately 6 in. (5%) and overall length from 15 to 22 in. (7 to 11%) in the period 1957 to 1974.

b. All market classes show a sharp increase in overall length in 1973 and 1974, presumably due to safety bumper provisions.

c. Domestic intermediate and compact models also have increased wheelbase and overall length with time. Some domestic intermediates are now using a shorter wheelbase for the 2-door model than for the 4-door model. 1974 wheelbase and overall length dimensions of the intermediate class are similar to those of the 1956-1966 standard size car. 1974 wheelbase and overall length dimensions of the compact class are approaching those of the 1962-66 intermediates.

d. The apparent change in subcompact sales-weighted dimensional characteristics is due to a change in the mix of sales (e. g., Pinto, Gremlin, Vega) and not due to actual individual dimensional changes.

e. The overall U.S. sales-weighted values for wheelbase, overall length, and width are on a slightly downward trend due to the sales impact of compact and subcompact market classes.

f. Since 1962, the domestic sales-weighted overhang dimension appears to be increasing continuously.

3.5 ENGINE DISPLACEMENT AND COMPRESSION RATIO TRENDS

3.5.1 Engine Displacement

The trend of sales-weighted displacement for passenger cars is shown in Figure 3-60 for the total U.S. market and for the domestic and import subdivisions. Clearly evident in 1962 is the impact of large volume sales of domestic compacts (Falcon, Chevy II, Corvair, Valiant) which greatly reduced the sales-weighted cubic inch displacement (CID). From that time until 1970, there was a steady increase in average CID. From 1970 to 1973, there was a slight decline in the domestic CID average value, although the import CID continued to rise.

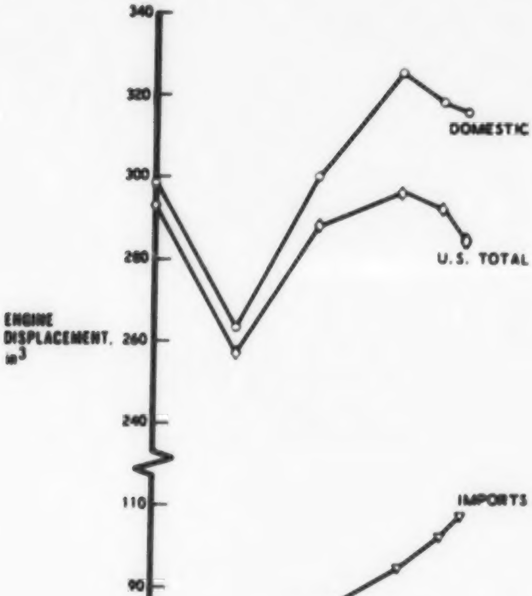


Figure 3-60. Engine Displacement Trends, U.S. Total, Domestic, and Imports (Sales Weighted)

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As shown in Figure 3-61, the standard and intermediate sales-weighted CID trends are similar to those of Figure 3-60. The compact class, however, continued to rise from 1962 to 1973. Again, the impact of the smaller specialty cars in 1966 (Mustang, etc.) is clearly evident.

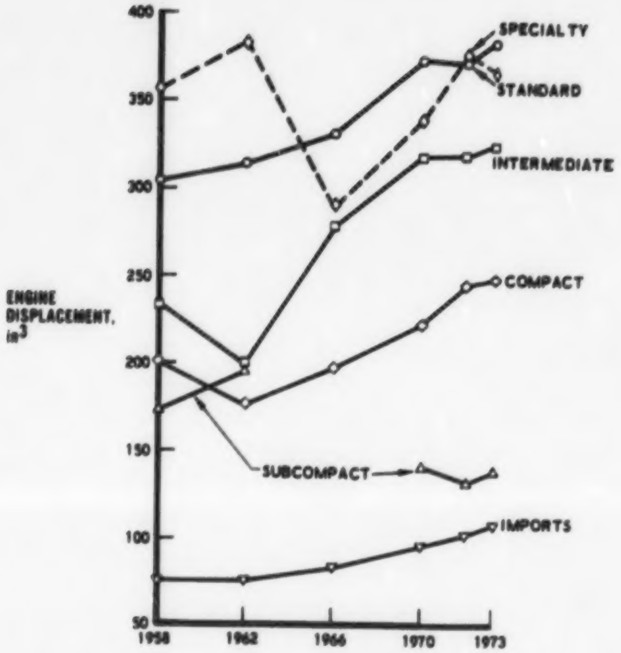


Figure 3-61. Engine Displacement Trends by Domestic Market Class and Total Imports (Sales Weighted)

3.5.2 Compression Ratio

Sales-weighted compression ratio trends are shown in Figure 3-62 for the total U.S. market, for domestic passenger cars, and for imports.

Following the 1962 reduction in sales-weighted compression ratio (CR) occasioned by high-volume compact car sales, both the domestic and U.S. total averages rose sharply and then declined to new lows in 1973. The 1973 CR values reflect not only the increase in car sales of smaller car models, but also the decision of the U.S. domestic auto industry to reduce compression ratio across the board in order to be able to operate with lower octane unleaded gasoline. Import CR values rose sharply and steadily from 1962 to 1970, but leveled off in 1970-73, again because of anticipated use of unleaded gasoline.

Similar CR trends as a function of market class are shown in Figure 3-63; they are generally similar to the overall trends of Figure 3-62.

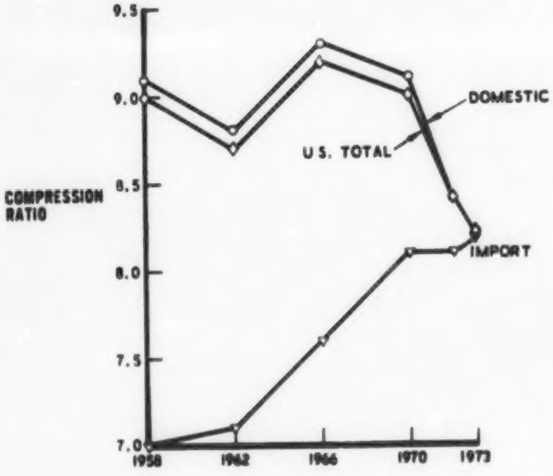


Figure 3-62. Compression Ratio Trends, U.S. Total, Domestic, and Imports (Sales Weighted)

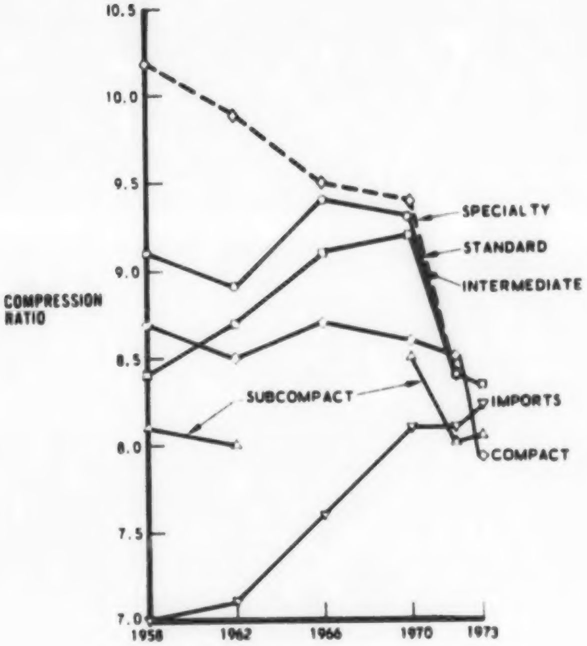


Figure 3-63. Compression Ratio Trends by Domestic Market Class and Total Imports (Sales Weighted)

3.5.3 Comments on Engine Displacement and Compression Ratio Trends

The following overview comments summarize the more significant trends illustrated in Figures 3-60 to 3-63.

a. In 1973, the U.S. total sales-weighted engine displacement (CID) was slightly lower than in 1958. The average displacement of domestically produced passenger cars was approximately 20 cu in. (7%) higher in 1973 than in 1958, even though the sales of less-than-standard-size cars increased from 10% to 69% of total sales during this period. The sales-weighted displacement of the standard size class increased nearly 67 cu in. (22%) to a value of 371.4 cu in. in the same period.

b. The engine displacement of import models rose approximately 32 cu in. (43%) from 1958 to 1973.

c. The 1973 U.S. total sales-weighted compression ratio is the lowest since 1962 (approximately 8.2). The import CR value rose to 8.15 in 1973 from 7.0 in 1958. The impact of anticipated use of unleaded gasoline has been forcing the trend of domestic and U.S. total sales-weighted CR values.

3.6 ACCESSORY WEIGHT TRENDS

3.6.1 Percent Cars Equipped

Figure 3-64 summarizes available data concerning the percent of passenger cars that have been equipped with various power and luxury items over the past 16 years.

All items shown have risen sharply in the period 1962 to 1973. Both automatic transmissions and radios were used in over 90% of all domestically produced passenger cars in 1970-73. The use of power steering was approaching the 90% level in 1973. Both air conditioning and power brakes, at approximately 75% in 1973, exhibit a slope that indicates that they also may approach the 90% level in 4 to 5 years. The vinyl top (at about 7 lb per car) was used in approximately 49% of all domestic cars in 1973.

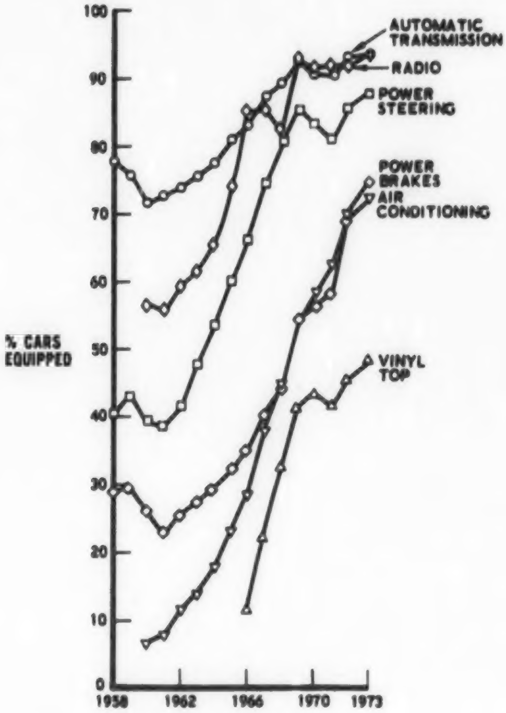


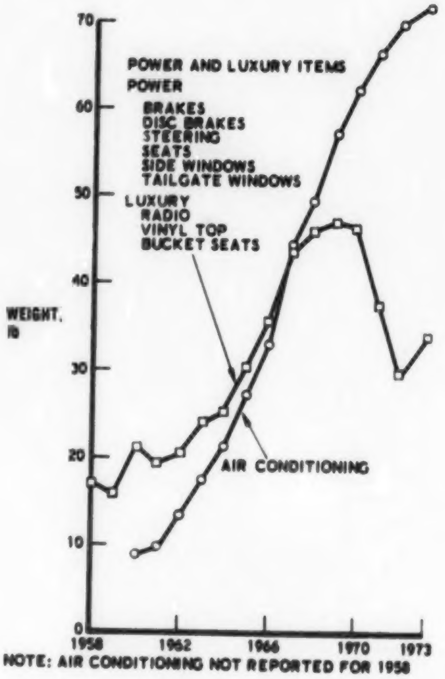
Figure 3-64. Power and Luxury Item Use Trends, Domestic Only

3.6.2 Sales-Weighted Weight Trends

Figure 3-65 illustrates the sales-weighted average weight per car for optional air conditioning and other combined power and luxury items over the 1958 to 1973 period.

Air conditioning alone accounted for an average of 73 lb per car in 1973. The sharp drop in average weight for the combined power and luxury item curve from 1970 to 1972 is merely a reflection that a number of power and luxury items were made standard equipment on many car models in that period and are, therefore, not separately accountable as in the past.

At the slope existing between 1966 and 1970 for combined power and luxury items, their average weight in 1973 would represent approximately 52 lb per car, which, when added to the air conditioning weight of 73 lb, gives a total sales-weighted optional accessory weight average of 125 lb per car in 1973.



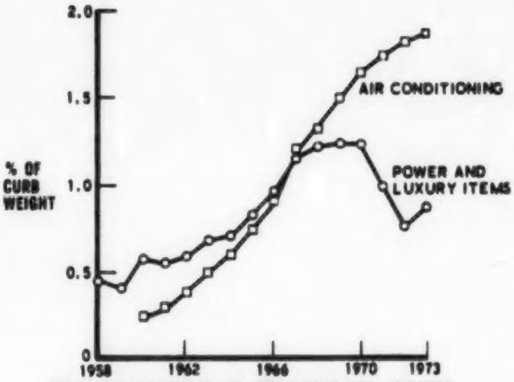
NOTE: AIR CONDITIONING NOT REPORTED FOR 1958

Figure 3-65. Optional Power and Luxury Item Weight Trends, Domestic Only (Sales Weighted)

3.6.3 Percent of Curb Weight

The weight values of Figure 3-65 are replotted in Figure 3-66 in terms of their percent of sales-weighted curb weight over the 16-year period.

In 1973, air conditioning represented approximately 1.85% of the curb weight. Again, using the extrapolated 1966 to 1970 characteristics for the other combined power and luxury items, their value in 1973 would be approximately 1.35 percent of the curb weight, for an overall total of approximately 3.2% of the curb weight.



NOTE: AIR CONDITIONING NOT REPORTED FOR 1958

Figure 3-66. Optional Power and Luxury Items as a Percentage of Curb Weight, Domestic Only (Sales Weighted)

3.6.4 Comments on Optional Power and Luxury Item Trends

The following overview comments summarize the more significant trends illustrated in Figures 3-64 to 3-66.

a. The automatic transmission is now nearly standard equipment in domestically produced passenger cars (93.5% so equipped in 1973). However, there is essentially no weight penalty for the automatic transmission.

b. Air conditioning was installed on 73% of all domestic cars in 1973, up from 8% in 1960. It accounted for 73 lb weight per car in 1973 on a sales-weighted basis, or approximately 1.85% of the average curb weight in 1973.

c. The other power and luxury items are also increasing in popularity, accounting for 47 lb per car in 1970, or approximately 1.25% of the average curb weight in 1970. More and more of these items are being made standard equipment and are thus no longer accounted for as optional power equipment values.

d. Air conditioning plus all other power and luxury items represented approximately 2.9% of the passenger car curb weight in 1970. This value dropped to 2.6% in 1972 because some items were made standard and excluded from optional accountability. Based on trends from 1966 to 1970, however, the combined value for air conditioning plus all other power and luxury items (standard plus optional) is estimated to be approximately 3.2% of the curb weight in 1973.

REFERENCES

1-1. Fuel Economy and Emission Control, U.S. Environmental Protection Agency, Office of Air and Water Programs, Mobile Source Pollution Control Program (November 1972).

1-2. New Motor Vehicles and New Motor Vehicle Engines--Control of Air Pollution, Federal Register, Vol. 37, No. 221 (Wednesday, November 15, 1972).

2-1. Branham Automobile Reference Book, Editions 1961, 1964, 1967, 1970, and 1973 (Each edition covers 3 years), Branham Publishing Co., Santa Monica, Calif.

2-2. Automotive News, Annual Almanac, Editions 1958-1973, Slocum Publishing Co., Detroit Mich.

2-3. Weight Engineers Handbook, Society of Aeronautical Weight Engineers, Los Angeles, Calif. (December 1968).

APPENDIX A

SPECIFIC DATA SOURCES AND USE

Two primary data sources were used throughout this study in order to maintain continuity and consistency: the Automotive News (Ref. A-1) and the Branham Automobile Reference Book (Ref. A-2). Supplementing these, to rectify any apparent anomolies in shipping weights (typographical errors, etc.) or model year identification, the available data in Kelley's Blue Book (Ref. A-3) and Automotive Industries (Ref. A-4) were used when necessary. New car sales breakdown by make and model for imports was obtained from R. L. Polk and Company (Ref. A-5) for the years 1968 to 1972.

For the calendar years 1958 through 1972, reported annual sales figures by make and model were used for obtaining the sales-weighted averages. The evaluation of the sales-weighted parameters for 1973 was necessarily based upon the latest available sales figures, which covered the period 1 January 1973 through 31 October 1973, and assuming that this sales mix applied to the entire year. Domestic sales by make and model were obtained from the 17 December 1973 edition of Automotive News (Ref. A-6), while a similar breakdown of import sales was obtained from R. L. Polk and Company (Ref. A-7). While it is recognized that the sales of standard and intermediate class cars decreased during the final 2 months of 1973 and those of the compact and subcompact class cars increased, the effect of this shift had a negligible impact on the monthly cumulative total U. S. sales by market class, as indicated in Figure 3-6 (in Section 3) (based on data from Ref. A-8), and a corresponding negligible effect on the calculated values of the various sales-weighted parameters for 1973.

The type of data available for use and the manner in which they were used is best illustrated by a specific example. The 1970 Chevelle has been selected to illustrate data usage, assumptions, and calculation techniques. The general approach and definition of terms were previously delineated in Section 2.

The primary, and limiting, criterion is the sales by model (Ref. A-1), shown in Table A-1 for 1970. This is shown in Column 1 of a sample worksheet (Table A-2) for the Chevelle and Chevelle station wagon.

The shipping weights for each of the Chevelle models, as given by Branham (Ref. A-2), are shown in Table A-3. The average weight of the four Chevelle 6-cylinder cars is 3241 lb, and the three Chevelle 6-cylinder station wagons average 3637 lb. These values are entered as the shipping weight in Column 2 of Table A-2.

Similarly, the average weight of four Chevelle V-8 cars is 3350 lb, or 109 lb heavier than the 6-cylinder cars. This difference of 109 lb is entered opposite the ΔWt for 8-cylinder engines, as is the comparable weight difference for the V-8 station wagons of 162 lb. These values will subsequently be used to determine the effective ΔW_e to be applied to the 6-cylinder shipping weights.

Where optional equipment weights were not reported for all models for all model years (in Ref. A-2), values for the preceding year were used if available. If not reported, a representative value from other comparable models was used.

For 1970 Chevelles, optional equipment weights were not reported and, as a result, equipment weights for 1969 were used (Table A-4). Note that the powerglide transmission weights are -15 and -8 lb, respectively, for the 6- and 8-cylinder cars. This results in a single value of -8.5 lb, based on the ratio of 6-cylinder to 8-cylinder cars and is the value that will be used to determine ΔW_{at}. The weights of the remaining optional equipment items are as given in Table A-4 and are entered opposite the appropriate weights in Table A-2. The weight of the vinyl top is not reported for 1969. In this case, the values for 1971 of 6 and 8 lb, respectively, for the sedans and station wagons were used. Similarly, the weight was not reported for the power tailgate windows; a representative value of 7 lb was used.

Fuel tank capacities for the Chevelle and Chevelle station wagons are 20 and 18 gallons, respectively, as listed in Table A-5.

The percentage of cars equipped with the various items of optional equipment is obtained from the Automotive News Almanac (Ref. A-1).

The data for automatic transmissions, V-8 engines, and disc brakes are shown in Table A-6, and on the basic worksheet (Table A-2). The percentage of Chevelles equipped with air conditioning is shown in Table A-7, power equipment is shown in Table A-8, and luxury comfort items in Table A-9.

The various effective delta weights to be added to the shipping weight are now calculated by multiplying the weight of each item by the percentage of cars equipped with that item, as previously discussed in Section 2.2, and are entered in columns 3 through 7 in Table A-2.

The curb weight W_c is then calculated in accordance with the method discussed in Section 2.1, i.e.,

$$W_c = W_{sh} + \Delta W_e + \Delta W_{at} + \Delta W_{ac} + \Delta W_{pe} + \Delta W_{li} + \Delta W_{gas}$$

From this, the curb weights for the 1970 Chevelle and Chevelle station wagon are 3552 lb and 3984 lb, respectively, as shown in column 8 of Table A-2.

The loaded weights W_l, as previously defined, are equal to the curb weight plus 300 lb, or 3852 lb and 4284 lb, as shown in column 9 of Table A-2.

The inertia weight is determined as a function of the loaded weight according to the schedule given in Table 2-1. Thus, the Chevelle is in the 4000-lb inertia weight class, while the Chevelle station wagon is in the 4500-lb inertia weight class, as shown in column 10 of Table A-2.

In determining the dimensional characteristics, it was found that the 2-door Chevelle had a wheelbase of 112 in., while the 4-door wheelbase was 116 in. Since a sales-breakdown between 2-door and 4-door models was not available, the average (114 in.) was used as the effective value, as shown in column 11 of Table A-2.

The overall length also differed between the 2-door and 4-door models at 197.2 and 201.1 in., respectively. Again, the average value (199.2 in.) was used.

As noted in Table A-2, the standard 6-cylinder engine has a displacement of 250 cu in. and a compression ratio of 8.5, while the V-8 engine has a displacement of 307 cu in. and compression ratio of 9.0. In this case, the effective engine characteristics were determined according to the reported percentage of cars equipped with 6- and 8-cylinder engines, i.e., 6.51% and 93.49%. Thus, the effective displacement was 303.3 cu in. and the compression ratio 8.97, or 9.0.

The sales-weighted curb weight of the 1970 Chevelles was calculated according to the method outlined in Section 2.1 as follows:

$$\overline{W_c} = \frac{\sum_{i=1}^{2} Si\ W_{ci}}{\sum_{i=1}^{2} Si}$$

where

S_1 = Sales of Chevelle = 346,714

S_2 = Sales of Chevelle station wagon = 34,340

$W_{c1} = W_c$, Chevelle = 3552 lb

$W_{c2} = W_c$, Chevelle station wagon = 3984 lb

then

$$\overline{W_c} = \frac{(346,714)(3552) + (34,340)(3984)}{346,714 + 34,340} = 3591 \text{ lb}$$

Values of the other sales-weighted parameters are found in a similar manner.

Table A-1. Model Breakdown of New-Car Sales in U.S., 1970 (from Ref. A-1)

Price classes: 1—$2,630 and under; 2 — $2,631 to $3,100; 3 — $3,101 to $3,750; 4 — $3,751 to $4,500; 5—$4,501 and over. Note: * Indicates included in series total.	Price Class	1970	
		Dec	12 Mos.
AMC Gremlin	1	5,875	39,701
Hornet	1	4,730	80,305
Hornet Station Wagon	2	1,484	3,695
Matador/Rebel	1	3,162	30,848
Matador/Rebel Station Wagon	2	962	14,338
Ambassador	2	3,445	42,747
Ambassador Station Wagon	4	879	13,286
Javelin	2	2,921	25,672
AMX	3	177	3,735
(6 Cylinder)		13,330	147,663
Total American Motors Corp.		23,635	254,327
Chrysler Newport	3	5,981	67,419
Newport Custom	3	2,569	24,723
300	4	1,532	15,770
New Yorker	5	3,984	30,683
Station Wagon	5	1,607	14,573
Imperial	5	1,720	10,753
	Total	17,393	163,921
Plymouth Valiant	1	18,853	246,013
Satellite	2	11,633	122,598
Satellite Station Wagon	2	1,499	16,409
Fury I	2	1,649	26,277
Fury II	2	2,557	43,122
Fury III	2	14,479	130,065
Sport Fury	3	2,173	21,679
VIP	3		
Plymouth Station Wagon	3	3,758	36,231
Barracuda	2	2,886	39,366
	Total	59,487	681,760
(6 Cylinder)		14,819	196,500
Chrysler-Plymouth Division Total		76,880	845,681
Dodge Dart	1	14,842	184,230
Sportsman Station Wagon	2	2,334	18,660
Coronet-Charger	2	11,487	95,444
Charger	2	1,611	36,391
Coronet Station Wagon	2	1,775	15,400
Polara	3	7,437	64,268
Monaco	3	1,791	19,592
Dodge Station Wagon	3	1,355	13,541
Challenger	2	4,260	56,571
	Total	46,892	504,097
(6 Cylinder)		11,473	148,347
Total Chrysler Corp.		123,772	1,349,778
Ford Pinto	1	26,896	76,038
Falcon	1	84	9,412
Club/Falcon Station Wagon	2	2,013	26,184
Maverick	1	19,276	342,198
Torino	1	23,214	305,277
Torino Station Wagon	2	4,222	46,027
Custom	2	2,325	33,270
Custom 500	2	3,255	37,494
Galaxie 500	2	29,247	285,876
Ford Station Wagon	3	18,374	203,497
LTD	3	33,361	278,229
Mustang	2	14,193	162,711
Thunderbird	5	4,154	42,456
	Total	180,614	1,848,669
(6 Cylinder)		24,830	447,439
Lincoln Continental	5	4,296	34,553
Continental Mark III	5	2,724	22,101
	Total	7,020	56,654
Mercury Comet	1	4,574	12,524
Montego	2	5,435	80,558
Montego Station Wagon	2	571	6,766
Monterey	3	3,698	46,234
Monterey Custom	3	1,265	8,324
Marauder	3	69	4,149
Marquis	4	8,096	61,166
Mercury Station Wagon	3	2,533	25,090
Cougar	3	6,220	65,564
	Total	32,461	310,375
(6 Cylinder)		3,166	18,270
Lincoln-Mercury Division Total		39,481	367,029
Total Ford Motor Co.		220,095	2,215,698
Buick Skylark	2	4,785	162,030
Skylark Station Wagon	3	273	10,131
LeSabre	3	5,859	157,170
Centurion/Wildcat	3	769	15,645
Electra 225	4	4,393	104,152
Buick Station Wagon	4	173	19,217
Riviera	5	912	24,862
	Total	17,164	493,207
(6 Cylinder)		79	4,488
Cadillac Calais	5	191	6,935
DeVille	5	4,569	128,840
Fleetwood	5	311	10,101
75 & Chassis	5	132	3,081
Eldorado	5	788	16,085
	Total	5,991	165,042
Chevrolet Vega 2300	1	4,425	22,363
Vega 2300 Station Wagon	1	211	157
Corvair	1		
Nova	1	8,518	240,396
Nova Station Wagon	2	440	6,157
Chevelle	2	12,460	346,714
Chevelle Station Wagon	2	1,239	34,340
Monte Carlo	3	5,591	121,246
Biscayne	2	578	28,597
Bel Air	2	1,481	57,791
Impala	2	17,612	457,043
Caprice	3	3,413	67,967
Chevrolet Station Wagon	3	859	93,045
Caprice Station Wagon	4	391	27,561
Camaro	2	5,520	142,261
Corvette	5	831	22,630
	Total	63,469	1,668,288
(4 Cylinder)		4,585	24,320
(6 Cylinder)		5,587	194,251
Oldsmobile F-85	2	8,536	203,008
F-85 Station Wagon	3	1,276	34,410
Delta 88	3	3,041	91,239
Delta Custom	3	2,241	53,929
98	4	2,871	62,566
Oldsmobile Station Wagon	4	19	26
Toronado	5	720	16,554
	Total	18,704	461,732
(6 Cylinder)		106	3,833
Pontiac LeMans/Tempest	2	6,153	179,751
LeMans/Tempest Station Wagon	2	179	8,512
Catalina	3	4,706	149,387
Catalina Brougham	3	367	584
Executive	3	334	14,680
Bonneville	4	1,563	49,348
Grand Ville	4	1,100	1,986
Grand Prix	4	1,245	50,329
Pontiac Station Wagon	3	474	33,854
Firebird	2	1,980	56,284
	Total	18,101	544,715
(6 Cylinder)		655	21,598
Total General Motors Corp.		123,429	3,332,984
Checker		322	4,167
Miscellaneous Domestic Total	1-4	340	4,456
Import	Total	115,404	1,230,961
(Total Domestic Station Wagons)		48,800	721,107
Grand Total All Registrations		606,675	8,388,204

Table A-2. Sample Worksheet

MANUFACTURER CHEVROLET

YEAR 1970

		①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
No.	NAME	No. OF SALES	SHIPPING WEIGHT lb	ENGINE WEIGHT lb	AUTOMATIC TRANS-MISSION WEIGHT lb	AIR CONDI-TIONING WEIGHT lb	POWER AND LUXURY WEIGHT lb	GAS WEIGHT lb	CURB WEIGHT lb	LOAD WEIGHT lb	INERTIA WEIGHT lb
1	Chevelle	346,714	3241	101.9	-7.3	42.5	53.5	120	3552	3852	4000
2	Chevelle STA. WGN	34,340	3637	151.5	-7.3	42.5	52.3	108	3984	4284	4500
3											
4											
5											
6											

	⑪	⑫	⑬	⑭	⑮	⑯
No.	WHEEL-BASE in.	OVERALL LENGTH in.	OVERALL WIDTH in.	DISPLACE-MENT in.^{3}	COM-PRESSION RATIO	GAS gal
1	114	199.2	75.4	303.3	9.0	20
2	116	206.5	75.4	303.3	9.0	18
3						
4						
5						
6						

ITEM		Δ WEIGHT	% SALES
ENGINE	4-CYL		
	6-CYL	0	6.51
	8-CYL	109/162	93.49
AUTOMATIC TRANSMISSION 6 = 8 =		-15 -2 } -8.5	85.64
AIR CONDITIONING		93	45.72

ITEM	Δ WEIGHT	% SALES
POWER BRAKES	12	40.75
POWER DISC BRAKES	39	31.64
POWER STEERING	29	82.51
POWER SEAT	0	NOT AVAILABLE
POWER SIDE WINDOWS	23	1.16
POWER T. G. WINDOW	c/7 (est.)	5.55
RADIO	8	93.43
VINYL TOP	6/8	38.16
BUCKET SEATS	14/0	16.86

ENGINE	DISPLACEMENT in.^{3}	COMPRESSION RATIO
4-CYL		
6-CYL	250	8.5
8-CYL	307	9.0

Table A-3 (from Ref. A-2)

CHEVROLET Division, General Motors Corp., Detroit, Michigan 48202

1970

Chevy Nova Series (4 cyl.) 111" w.b. Starting September, 1969
Bore & Stroke 3.875"x3.25"; Tax. H.P. 24.0; P.D. 153 cu. in.

Type of Body Pass. Cap.	Model	Ship. Wt.	O'r-all Length	Factory List Pr.	Factory Del'd. Pr.
5 Ps. 2 dr. Coupe	11127	2,820	189.4"	$2,182.00	$2,335.00
6 Ps. 4 dr. Sedan	11169	2,843	189.4"	2,210.00	2,365.00

Motor: Max. bhp. 90 at 4000 rpm., torque 152 at 2400 rpm., Comp. ratio 8.5 to 1, gas tank 18 gals., battery 12 volt 45 amps., tires E78x14/B/2.

Chevy Nova Series (6 cyl.) 111" w.b., Starting September, 1969
Bore & Stroke 3.875"x3.25"; Tax. H.P. 36.0; P.D. 230 cu. in.

Type of Body Pass. Cap.	Model	Ship. Wt.	O'r-all Length	Factory List Pr.	Factory Del'd. Pr.
5 Ps. 2 dr. Coupe	11327	2,919	189.4"	$2,256.00	$2,414.00
6 Ps. 4 dr. Sedan	11369	2,942	189.4"	2,284.00	2,443.00

Motor: Max. bhp. 140 at 4400 rpm., torque 220 at 1600 rpm., Comp. ratio 8.5 to 1, gas tank 18 gals., battery 12 volts 45 amps., tires E78x14/B/2.

Chevrolet & Chevelle Series (6 cyl.) Starting September, 1969
Bore & Stroke 3.875"x3.53"; Tax. H.P. 36.0; P.D. 250 cu. in.

Type of Body Pass. Cap.	Model	Ship. Wt.	O'r-all Length	Factory List Pr.	Factory Del'd. Pr.
Chevrolet Biscayne—119" w.b.					
6 Ps. 4 dr. Sedan	15369	3,600	216.0"	$2,598.00	$2,787.00
Chevrolet Bel Air—119" w.b.					
6 Ps. 4 dr. Sedan	15569	3,604	216.0"	$2,693.00	$2,887.00
Chevrolet Impala—119" w.b.					
5 Ps. 2 dr. Sport Coupe	16337	3,641	216.0"	$2,836.00	$3,038.00
6 Ps. 4 dr. Sedan	16339	3,655	216.0"	2,820.00	3,021.00
Chevelle Malibu—112" w.b. (4-dr. models 116" w.b.)					
5 Ps. 2 dr. Sport Coupe	13537	3,197	197.2"	$2,543.00	$2,719.00
6 Ps. 4 dr. Sport Sedan	13539	3,302	201.1"	2,611.00	2,790.00
5 Ps. 2 dr. Convertible	13567	3,243	197.2"	2,732.00	2,919.00
6 Ps. 4 dr. Sedan	13569	3,221	201.2"	2,511.00	2,685.00
Nomad—116" w.b.					
6 Ps. 4 dr. Sta. Wag. 2 st.	13136	3,615	206.5"	$2,652.00	$2,835.00
Greenbrier—116" w.b.					
6 Ps. 4 dr. Sta. Wag. 2 st.	13336	3,615	206.5"	$2,757.00	$2,946.00
Concours—116" w.b.					
6 Ps. 4 dr. Sta. Wag. 2 st.	13536	3,681	206.5"	$2,861.00	$3,056.00
El Camino—116" w.b.					
3 Ps. 2 dr. Sedan P.U.	13380	3,194	206.5"	$2,446.00	$2,677.00
3 Ps. 2 dr. Sedan P.U.	13580	3,214	206.5"	2,521.00	2,758.00

Motor: Max. bhp. 155 at 4200 rpm., torque 235 at 1600 rpm., Comp. ratio 8.5 to 1, gas tank Chevrolet 25 (Sta. Wag. 22) gals., Chevelle 20 gals., battery 12 volts 45 amps., tires Chevrolet F78x15/B/2, Chevelle E78x14/B/2 (Sta. Wag. & El Camino F78x14/B/2.)

Chevy Nova & Chevelle Series (8 cyl. V-8) Starting September, 1969
Bore & Stroke 3.875"x3.25"; Tax. H.P. 48.0; P.D. 307 cu. in.

Type of Body Pass. Cap.	Model	Ship. Wt.	O'r-all Length	Factory List Pr.	Factory Del'd. Pr.
Chevy Nova—111" w.b.					
5 Ps. 2 dr. Coupe	11427	3,048	189.4"	$2,341.00	$2,503.00
6 Ps. 4 dr. Sedan	11469	3,071	189.4"	2,369.00	2,533.00
Chevelle Malibu—112" w.b. (4-dr. 116" w.b.)					
5-Ps. 2 dr. Sport Coupe	13637	3,307	197.2"	$2,628.00	$2,809.00
6 Ps. 4 dr. Sport Sedan	13639	3,409	201.2"	2,696.00	2,881.00
5 Ps. 2 dr. Convertible	13667	3,352	197.2"	2,817.00	3,009.00
6 Ps. 4 dr. Sedan	13669	3,330	201.2"	2,596.00	2,775.00
Nomad—116" w.b.					
6 Ps. 4 dr. Sta. Wag. 2 st.	13236	3,718	206.5"	$2,737.00	$2,925.00
Greenbrier—116" w.b.					
6 Ps. 4 dr. Sta. Wag. 2 st.	13436	3,748	206.5"	$2,903.00	$3,100.0
9 Ps. 4 dr. Sta. Wag. 3 st.	13446	3,794	206.5"	3,010.00	3,213.00
Concours—116" w.b.					
6 Ps. 4 dr. Sta. Wag. 2 st.	13636	3,794	206.5"	$3,007.00	$3,210.00
9 Ps. 4 dr. Sta. Wag. 3 st.	13646	3,836	206.5"	3,114.00	3,323.00
Concours Estate—116" w.b.					
6 Ps. 4 dr. Sta. Wag. 2 st.	13836	3,821	206.5"	$3,132.00	$3,342.00
9 Ps. 4 dr. Sta. Wag. 3 st.	13846	3,880	206.5"	3,239.00	3,455.00
El Camino—116" w.b.					
3 Ps. 2 dr. Sedan P.U.	13480	3,300	206.5"	$2,531.00	$2,769.00
3 Ps. 2 dr. Sedan P.U.	13680	3,321	206.5"	2,606.00	2,850.00

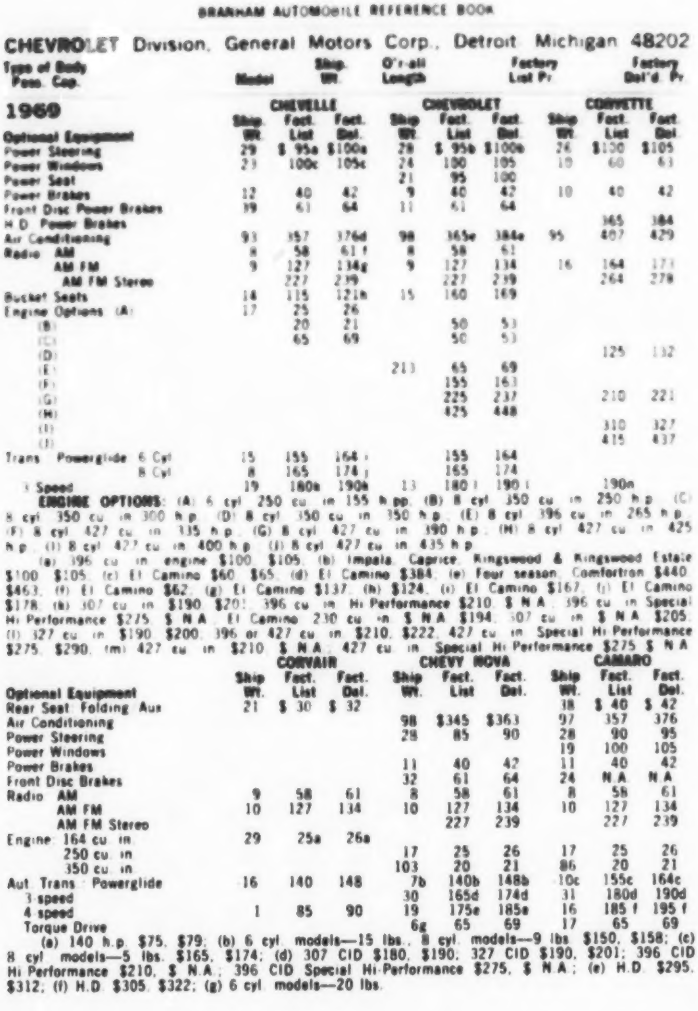
Motor: Max. bhp. 200 at 4600 rpm., torque 300 at 2400 rpm., Comp. ratio 9.0 to 1, gas tank: Chevy Nova 18 (Calif. 17) gals., Chevelle 20 (Calif. 18) gals., battery 12 volts 45 amps., tires: Chevy Nova E78x14/B/2, Chevelle F78x14/B/2 (Sta. Wag. G78x14/B/2 or D/2.)

Chevrolet & Monte Carlo Series (8 cyl. V-8) 119" w.b. (Monte Carlo 116" w.b.) Start Sept. 1969
Bore & Stroke 4.0"x3.48; Tax. H.P. 51.2; P.D. 350 cu. in.

Type of Body Pass. Cap.	Model	Ship. Wt.	O'r-all Length	Factory List Pr.	Factory Del'd. Pr.
Chevrolet Biscayne					
6-Ps. 4-dr. Sedan	15469	3,759	216"	$2,73 00	$2,898.00
Chevrolet Bel Air					
6 Ps. 4 dr. Sedan	15669	3,763	216"	$2,798.00	$2,998.00
Chevrolet Impala					
5-Ps. 2-dr. Sport Coupe	16437	3,788	216"	$2,941.00	$3,149.00
6-Ps. 4-dr. Sport Sedan	16439	3,871	216"	2,992.00	3,203.00
5 Ps. 2-dr. Coupe	16447	3,801	216"	3,052.00	3,266.00
5 Ps. 2-dr. Convertible	16467	3,843	216"	3,158.00	3,337.00
6 Ps. 4 dr. Sedan	16469	3,802	216"	2,925.00	3,132.00
Chevrolet Caprice					
6-Ps. 4-dr. Sedan	16639	3,905	216"	$3,250.00	$3,474.00
5 Ps. 2-dr. Coupe	16647	3,821	216"	3,300.00	3,527.00
Brookwood					
6-Ps. 4-dr. Sta. Wag. 2-st.	15436	4,204	216.7"	$3,079.00	$3,294.00
Townsman					
6-Ps. 4-dr. Sta. Wag. 2-st.	15636	4,208	216.7"	$3,139.00	$3,357.00
9-Ps. 4-dr. Sta. Wag. 3-st.	15646	4,263	216.7"	3,246.00	3,469.00
Kingswood					
6-Ps. 4-dr. Sta. Wag. 2-st.	16436	4,269	216.7"	$3,253.00	$3,477.00
9-Ps. 4-dr. Sta. Wag. 3-st.	16446	4,321	216.7"	3,360.00	3,589.00
Kingswood Estate					
6 Ps. 4-dr. Sta. Wag. 2-st.	16636	4,295	216.7"	$3,516.00	$3,753.00
9 Ps. 4-dr. Sta. Wag. 3-st.	16646	4,361	216.7"	3,623.00	3,866.00
Monte Carlo					
5 Ps. 2-dr. Sport Coupe	13857	3,460	205.8"	$2,915.00	$3,123.00
5-Ps. 2-dr. Convertible	13867	3,519	205.8"		

Motor: Max. bhp. 250 at 4800 rpm., torque 345 at 2800 rpm., Comp. ratio 9.0 to 1, gas tank: Monte Carlo 20 gals. (Calif. 18 gals.), Chevrolet 25 gals. (Sta. Wag. 22 gals..) (Calif. 23 gals., Sta. Wag. 20 gals.), battery 12 volts 45 amps (Monte Carlo 12 volts 61 amps.) tires: Bel Air & Biscayne F78x15/B/2; Impala & Caprice G78x15B/2; Sta. Wag. H78 15/D/4. Monte Carlo G78-15 (2 ply-4 ply).

Table A-4 (from Ref. A-2)



BRANHAM AUTOMOBILE REFERENCE BOOK

CHEVROLET Division, General Motors Corp., Detroit Michigan 48202

Type of Body Pass. Cap.	Model	Ship. Wt.	O'r-all Length	Factory List Pr.	Factory Del'd. Pr.

1969

	CHEVELLE			CHEVROLET			CORVETTE		
Optional Equipment	Ship. Wt.	Fact. List	Fact. Del.	Ship. Wt.	Fact. List	Fact. Del.	Ship. Wt.	Fact. List	Fact. Del.
Power Steering	29	$ 95a	$100a	28	$ 95b	$100b	26	$100	$105
Power Windows	23	100c	105c	24	100	105	10	60	63
Power Seat				21	95	100			
Power Brakes	12	40	42	9	40	42	10	40	42
Front Disc Power Brakes	39	61	64	11	61	64			
H.D. Power Brakes								365	384
Air Conditioning	93	357	376d	98	365e	384e	95	407	429
Radio AM	8	58	61 f	8	58	61			
AM FM	9	127	134g	9	127	134	16	164	172
AM FM Stereo		227	239		227	239		264	278
Bucket Seats	14	115	121h	15	160	169			
Engine Options (A)	17	25	26						
(B)		20	21		50	53			
(C)		65	69		50	53			
(D)								125	132
(E)				213	65	69			
(F)					155	163			
(G)					225	237		210	221
(H)					425	448			
(I)								310	327
(J)								415	437
Trans. Powerglide 6 Cyl	15	155	164 i		155	164			
8 Cyl	8	165	174 j		165	174			
3 Speed	19	180k	190k	13	180 l	190 l		190m	

ENGINE OPTIONS: (A) 6 cyl. 250 cu. in. 155 h.p. (B) 8 cyl. 350 cu. in. 250 h.p. (C) 8 cyl. 350 cu. in. 300 h.p. (D) 8 cyl. 350 cu. in. 350 h.p. (E) 8 cyl. 396 cu. in. 265 h.p. (F) 8 cyl. 427 cu. in. 335 h.p. (G) 8 cyl. 427 cu. in. 390 h.p. (H) 8 cyl. 427 cu. in. 425 h.p. (I) 8 cyl. 427 cu. in. 400 h.p. (J) 8 cyl. 427 cu. in. 435 h.p.

(a) 396 cu. in. engine $100. $105. (b) Impala, Caprice, Kingswood & Kingswood Estate $100. $105. (c) El Camino $60. $65. (d) El Camino $384. (e) Four season, Comfortron $440. $463. (f) El Camino $62. (g) El Camino $137. (h) $124. (i) El Camino $167. (j) El Camino $178. (k) 307 cu. in. $190. $201. 396 cu. in. Hi Performance $210. $ N.A. 396 cu. in. Special Hi Performance $275. $ N.A. El Camino 230 cu. in. $ N.A. $194. 307 cu. in. $ N.A. $205. (l) 327 cu. in. $190. $200. 396 or 427 cu. in. $210. $222. 427 cu. in. Special Hi Performance $275. $290. (m) 427 cu. in. $210. $ N.A. 427 cu. in. Special Hi Performance $275 $ N.A.

	CORVAIR			CHEVY NOVA			CAMARO		
Optional Equipment	Ship Wt.	Fact. List	Fact. Del.	Ship Wt.	Fact. List	Fact. Del.	Ship Wt.	Fact. List	Fact. Del.
Rear Seat: Folding Aux	21	$ 30	$ 32				38	$ 40	$ 42
Air Conditioning				98	$345	$363	97	357	376
Power Steering				28	85	90	28	90	95
Power Windows							19	100	105
Power Brakes				11	40	42	11	40	42
Front Disc Brakes				32	61	64	24	N.A.	N.A.
Radio AM	9	58	61	8	58	61	8	58	61
AM FM	10	127	134	10	127	134	10	127	134
AM FM Stereo					227	239		227	239
Engine: 164 cu. in.	29	25a	26a						
250 cu. in.				17	25	26	17	25	26
350 cu. in.				103	20	21	86	20	21
Aut. Trans.: Powerglide	16	140	148	7b	140b	148b	10c	155c	164c
3-speed				30	165d	174d	31	180d	190d
4-speed	1	85	90	19	175e	185e	16	185 f	195 f
Torque Drive				6g	65	69	17	65	69

(a) 140 h.p. $75. $79; (b) 6 cyl. models—15 lbs., 8 cyl. models—9 lbs. $150, $158; (c) 8 cyl. models—5 lbs. $165, $174; (d) 307 CID $180, $190; 327 CID $190, $201; 396 CID Hi Performance $210, $ N.A.; 396 CID Special Hi-Performance $275, $ N.A.; (e) H.D. $295, $312; (f) H.D. $305, $322; (g) 6 cyl. models—20 lbs.

Table A-5. Major Specifications for 1971 U.S. Makes (from Ref. A-1)

Make and Model	Dimensions										Engine						Capacity		
	Wheelbase (in.)	Overall Length (in.)	Overall Width (in.)	Overall Height (in.)	Curb Weight (lbs.)	Headroom (in.) (front seat to headliner)	Legroom (in.) (front floor to front seat back)	Min. Road Clearance (in.) (rear axle)	Front Tread (in.)	Rear Tread (in.)	Type	Compression Ratio	Maximum BHP at RPM	Displacement (cubic in.)	Bore and Stroke (inches)	Maximum Torque (in ft. lbs.) at RPM	Gasoline Tank (gals.)	Cooling System (quarts) (with heater)	Crankcase (quarts)
CHEVROLET—Camaro 6	108.0	188.0	74.4	50.5	3166	37.4	43.8	4.5	61.3	60.0	6	8.5	155 ● 4200	250	3.875 x 3.53	235 ● 1600	19	12	4
Camaro V-8	108.0	188.0	74.4	50.5	3278	37.4	43.8	4.5	61.3	60.0	V 8	9.0	200 ● 4600	307	3.875 x 3.25	300 ● 2400	19	15	4
Chevy Nova 4	111.0	189.4	72.4	53.8	2937	38.8	41.0	5.1	59.0	58.9	4	8.5	90 ● 4000	153	3.875 x 3.25	152 ● 2400	18	9	3.5
Chevy Nova 6	111.0	189.4	72.4	53.8	3037	38.8	41.0	5.1	59.0	58.9	6	8.5	140 ● 4400	230	3.875 x 3.25	220 ● 1600	18	12	4
Chevy Nova 8	111.0	189.4	72.4	53.8	3166	38.8	41.0	5.1	59.0	58.9	V-8	9.0	200 ● 4600	307	3.875 x 3.25	300 ● 2400	18	15	4
Chevelle 6	116.0	201.2	75.4	53.2	3327	38.5	42.7	4.7	60.0	59.9	6	8.5	155 ● 4200	250	3.875 x 3.53	235 ● 1600	20	12	4
Chevelle 6 2-dr.	112.0	197.2	75.4	52.6	3303	37.5	42.8	4.6	60.0	59.9	6	8.5	155 ● 4200	250	3.875 x 3.53	235 ● 1600	20	12	4
Chevelle V-8	116.0	201.2	75.4	53.2	3434	38.5	42.7	4.7	60.0	59.9	V 8	9.0	200 ● 4600	307	3.875 x 3.25	300 ● 2400	20	15	4
Chevelle Wagon V-8	116.0	206.5	75.4	55.1	3822	38.1	42.8	6.2	60.0	59.9	V 8	9.0	200 ● 4600	307	3.875 x 3.25	300 ● 2400	18	15	4
Monte Carlo V-8 2-dr.	116.0	205.8	75.6	52.6	3563	37.5	42.8	4.7	60.3	59.3	V 8	9.0	250 ● 4800	350	4.00 x 3.48	345 ● 2800	20	16	4
Chevrolet 6	119.0	216.0	79.8	56.0	3729	38.8	42.3	6.2	63.4	63.3	6	8.5	155 ● 4200	250	3.875 x 3.53	235 ● 1600	25	12	4
Chevrolet V-8	119.0	216.0	79.8	56.0	3888	38.8	42.3	6.2	63.4	63.3	V 8	9.0	250 ● 4800	350	4.00 x 3.48	345 ● 2800	25	16	4
Chevrolet Wagon V-8	119.0	216.7	79.8	57.1	4333	39.2	41.4	7.1	63.5	63.4	V 8	9.0	250 ● 4800	350	4.00 x 3.48	345 ● 2800	22	16	4
Corvette	98.0	182.5	69.0	47.4	3285	37.2	43.0	4.5	58.7	59.4	V 8	10.25	300 ● 4800	350	4.00 x 3.48	380 ● 3200	20	15	4
Chevy Nova 6											6	8.5	155 ● 4200	250	3.875 x 3.53	235 ● 1600			
Chevelle, Nova, Camaro											V 8	9.0	250 ● 4800	350	4.00 x 3.48	345 ● 2800			
Chevrolet, Nova, Chevelle, Monte Carlo, Camaro											V 8	10.25	300 ● 4800	350	4.00 x 3.48	380 ● 3200			
Chevrolet, Monte Carlo											V 8	9.0	265 ● 4800	400	4.125 x 3.75	400 ● 2400			
Chevelle, Camaro											V 8	10.25	350 ● 5200	402	4.126 x 3.76	415 ● 3400			
Chevelle, Monte Carlo											V 8	10.25	330 ● 4800	402	4.126 x 3.76	410 ● 3200			
Chevrolet											V 8	10.25	345 ● 4400	454	4.251 x 4.00	500 ● 3000			
Chevelle, Monte Carlo											V 8	10.25	360 ● 4400	454	4.251 x 4.00	500 ● 3200			
Chevrolet, Corvette											V 8	10.25	390 ● 4800	454	4.251 x 4.00	500 ● 3400			
Camaro 228											V 8	11.0	360 ● 6000	350	4.00 x 3.48	380 ● 4000			
Corvette											V 8	11.0	350 ● 5600	350	4.00 x 3.48	380 ● 3600			
Corvette											V 8	11.0	370 ● 6000	350	4.00 x 3.48	380 ● 4000			
Corvette											V 8	11.25	460 ● 5600	454	4.25 x 4.00	490 ● 3000			

Table A-6 (from Ref. A-1)

Installations, Percent of Output by Nameplate . . .

Engine, Power Train Options in '70s

	Automatic Trans-mission	Percent of Output	4-Speed Trans-mission	Percent of Output	V-8 Engines	Percent of Output	Limited Slip Dif-ferential	Percent of Output	Disk Brakes	Percent of Output
AMERICAN MOTORS	181,996	75.00	6,331	2.61	112,094	46.19	24,603	10.14	21,699	8.94
Ambassador	57,048	95.18	N.A.		55,440	92.49	7,540	12.58	7,238	12.08
Hornet	49,527	67.32	N.A.		5,348	7.27	1,756	2.39	1,445	1.96
Rebel	40,683	81.86	1,350	2.72	23,254	46.79	8,072	16.24	2,989	6.01
Javelin	21,781	72.52	2,513	8.37	23,936	79.70	2,983	9.93	6,644	22.12
AMX	1,648	40.04	2,468	59.96	4,116	100.00	3,398	82.56	3,383	82.19
Gremlin	11,309	44.70	N.A.		N.A.		854	3.38	N.A.	
CHRYSLER CORP.*	1,203,014	87.63	58,276	4.25	1,032,314	75.20	147,877	10.77	216,169	15.75
C-P Division	773,492	88.21	36,418	4.15	678,105	77.33	95,676	10.91	156,443	17.83
Valiant	6,812	2.82	N.A.		103,223	42.73	N.A.		N.A.	
Barracuda	183,377	75.91	7,561	3.13	66,480	27.52	15,533	6.43	11,402	4.72
Belvedere	26,806	17.85	N.A.		115,213	76.72	826	0.55	11,939	7.95
Fury	146,617	56.23	6,049	2.32	252,714	96.92	6,832	2.62	35,308	13.54
Total Plymouth	190,546	27.04	6,049	0.86	503,884	71.52	8,761	1.24	47,247	6.70
Chrysler	160,916	100.00	N.A.		160,916	100.00	15,174	9.43	61,341	38.12
Imperial	11,382	100.00	N.A.		11,382	100.00	3,336	29.31	11,382	100.00
Dodge Division	429,522	86.60	21,858	4.41	354,209	71.41	52,201	10.52	59,726	12.04
Dart	141,347	82.14	4,476	2.58	51,993	30.23	8,091	.68	6,714	3.88
Coronet	99,398	91.69	6,179	5.72	97,772	90.19	11,598	10.68	10,731	9.87
Challenger	54,425	70.92	9,365	12.23	66,093	86.11	17,195	22.42	13,894	18.10
Charger	41,906	91.22	1,838	4.04	45,720	99.52	8,455	18.40	8,822	19.19
Polara	92,446	99.73	N.A.		92,631	99.91	6,862	7.43	19,565	21.10
FORD MOTOR CO.*	1,977,559	89.92	34,967	1.59	1,657,996	75.39	99,053	4.50	1,061,989	48.29
Ford Division	1,631,732	88.64	30,542	1.66	1,312,225	71.28	74,000	4.02	791,719	43.01
Falcon	11,954	81.82	N.A.		2,746	18.80	N.A.		N.A.	
Torino	340,972	90.42	11,501	3.05	312,883	82.97	24,134	6.40	106,436	28.22
Ford	799,608	98.97	N.A.		800,221	99.05	30,942	3.83	584,145	72.30
Maverick	300,569	71.86	N.A.	....	N.A.	....	N.A.	....	N.A.	....
Mustang	131,107	74.70	19,041	10.85	148,853	84.82	15,363	8.75	53,616	30.55
Thunderbird	47,522	100.00	N.A.	....	47,522	100.00	3,561	7.49	47,522	100.00
L-M Division	345,827	96.54	4,425	1.24	345,771	96.53	25,053	6.99	270,270	75.45
Lincoln	36,603	100.00	N.A.	....	36,603	100.00	5,289	14.45	36,603	100.00
Mark III	20,506	100.00	N.A.	....	20,506	100.00	3,640	17.75	20,506	100.00
Montego	89,126	92.58	2,801	2.91	83,754	87.00	5,102	5.30	40,568	42.14
Mercury	139,233	99.86	N.A.	....	139,428	100.00	7,669	5.50	128,315	92.03
Cougar	60,359	92.18	1,624	2.48	65,480	100.00	3,353	5.12	44,278	67.62
GENERAL MOTORS	3,897,357	93.55	127,190	3.05	3,889,257	93.36	347,762	8.35	1,937,335	46.50
Buick Division	661,085	99.19	2,450	0.37	660,018	99.03	51,147	7.67	43,672	6.55
Buick	402,594	99.96	N.A.	....	402,744	100.00	32,292	8.02	26,916	6.68
Riviera	37,336	100.00	N.A.	....	37,336	100.00	6,752	18.08	3,974	10.64
Skylark	221,155	97.67	2,450	1.08	219,938	97.14	12,103	5.35	12,782	5.65
Cadillac Division	236,239	100.00	N.A.	....	236,239	100.00	22,779	9.64	236,239	100.00
Cadillac	212,397	100.00	N.A.	....	212,397	100.00	22,779	10.72	212,397	100.00
Eldorado	23,842	100.00	N.A.	....	23,842	100.00	N.A.	....	23,842	100.00
Chevrolet Division	1,724,558	89.06	92,909	4.80	1,696,981	87.63	160,834	8.31	848,532	43.82
Chevelle	378,564	85.64	43,943	9.94	413,255	93.49	48,242	10.91	139,856	31.64
Nova	236,764	75.13	16,646	5.28	139,341	44.22	19,695	6.25	25,820	8.19
Chevrolet	871,872	97.84	N.A.	....	868,770	97.49	39,902	4.48	394,663	44.29
Corvette	5,102	29.46	12,214	70.54	17,316	100.00	17,316	100.00	17,316	100.00
Camaro	91,352	73.14	18,678	14.95	112,323	89.93	19,752	15.81	124,901	100.00
Monte Carlo	140,904	96.53	1,428	0.98	145,976	100.00	15,927	10.00	145,976	100.00
Oldsmobile Division	621,929	97.87	9,223	1.45	629,930	99.13	51,306	8.07	442,480	69.63
F-85	296,803	95.66	9,223	2.97	304,730	98.21	31,357	10.11	118,890	38.32
Oldsmobile	299,651	99.98	N.A.	....	299,725	100.00	19,949	6.66	298,115	99.61
Toronado	25,475	100.00	N.A.	....	25,475	100.00	N.A.	....	25,475	100.00
Pontiac Division	653,546	94.54	22,608	3.27	666,089	96.35	61,696	8.92	366,412	53.00
Pontiac	337,447	99.78	N.A.	....	338,187	100.00	22,928	6.78	180,366	53.33
Tempest*	211,718	88.72	16,279	6.82	216,547	90.75	24,208	10.14	71,557	29.99
Firebird	39,131	80.29	6,008	12.33	45,605	93.57	8,185	16.79	48,739	100.00
Grand Prix	65.250	99.24	321	0.49	65,750	100.00	6,375	9.70	65,750	100.00
CHECKER MOTORS	5,010	90.53	N.A.	....	1,570	28.37	1,097	19.82	624	11.28
TOTAL	7,264,936	90.97	226,764	2.84	6,693,231	83.81	620,393	7.77	3,237,816	40.54

*—All Chrysler Corp. and Ford Motor Co. figures relate to factory sales in U. S. of cars built both in U. S. and Canada.

Table A-7 (from Ref. A-1)

Air Conditioner Installations '70 versus '69 Model Year

	1970 MODEL YEAR			1969 MODEL YEAR		
	Unit Total	Percentage Of Output	Pct. of 1970 Air-Conditioner Installation	Unit Total	Percentage Of Output	Pct. of 1969 Air-Conditioner Installation
AMERICAN MOTORS	84,423	34.79	1.80	95,867	38.90	2.07
Ambassador	53,516	89.28	1.16	68,738	90.75	1.48
Hornet-Rambler	10,010	13.61	0.21	6,967	9.50	0.15
Rebel	8,960	18.03	0.19	10,639	21.98	
Javelin	7,470	24.87	0.17	7,781	19.13	0.17
AMX	1,056	25.66	0.02	1,742	21.00	0.04
Gremlin	2,411	9.53	0.05	....	....	....
CHRYSLER CORP.*	679,368	49.49	14.47	772,465	51.15	16.65
C-P Division	454,827	51.87	9.69	532,426	56.06	11.48
Valiant	45,415	18.80	0.97	13,088	16.10	0.28
Barracuda	11,450	22.01	0.24	5,999	21.90	0.13
Belvedere	54,678	36.41	1.16	65,151	28.29	1.41
Fury	195,324	74.91	4.16	239,114	67.11	5.15
Total Plymouth	306,867	43.55	6.53	323,352	46.50	6.97
Chrysler	136,650	84.92	2.92	187,922	80.62	4.05
Imperial	11,307	99.34	0.24	21,152	99.01	0.46
Dodge Division	224,541	45.27	4.78	240,039	42.84	5.17
Dart	49,411	28.70	1.05	37,810	23.12	0.81
Coronet	50,837	46.89	1.09	73,002	39.64	1.57
Challenger	26,790	34.90	0.57	....	....	....
Charger	25,456	55.39	0.54	42,481	50.51	0.92
Polara	72,047	77.70	1.53	86,746	67.48	1.87
FORD MOTOR CO.*	1,165,899	53.01	24.83	1,098,066	47.95	23.67
Ford Division	896,507	48.70	19.09	837,366	44.77	18.05
Falcon	1,367	9.36	0.03	8,591	10.30	0.18
Torino-Fairlane	147,306	39.06	3.14	98,683	28.90	2.13
Ford	587,904	72.77	12.52	599,743	63.05	12.93
Maverick	62,062	14.84	1.32	19,815	11.50	0.43
Mustang	52,186	29.74	1.11	67,987	24.61	1.46
Thunderbird	45,682	96.13	0.97	42,547	92.52	0.92
L-M Division	269,362	75.20	5.74	260,700	62.16	5.62
Lincoln	36,453	99.59	0.78	37,925	99.02	0.82
Mark III	20,494	99.94	0.43	22,946	99.38	0.49
Montego	47,663	49.51	1.02	43,019	36.63	0.93
Mercury	124,384	83.76	2.65	107,819	76.72	2.32
Cougar	40,368	61.65	0.86	48,991	48.96	1.06
GENERAL MOTORS	2,763,797	66.34	58.87	2,672,391	59.63	57.60
Buick Division	524,000	78.62	11.16	509,195	76.52	10.97
Buick	344,669	85.58	7.34	338,294	79.80	7.29
Riviera	36,169	96.87	0.77	50,155	94.86	1.08
Skylark-Special	143,162	63.23	3.05	120,746	64.02	2.60
Cadillac Division	233,567	98.87	4.98	215,792	97.78	4.65
Cadillac	209,788	98.77	4.47	192,577	97.60	4.15
Eldorado	23,779	99.73	0.51	23,215	99.50	0.50
Chevrolet Division	1,033,653	53.38	22.01	931,477	44.37	20.08
Chevelle	202,087	45.72	4.31	167,311	34.29	3.61
Nova	45,139	14.32	0.96	28,939	11.19	0.62
Chevrolet	639,964	71.81	13.63	688,949	62.12	14.85
Corvette	6,659	38.46	0.14	8,400	29.88	0.18
Camaro	38,565	30.88	0.82	37,878	18.09	0.82
Monte Carlo	101,239	69.35	2.15	....	....	....
Oldsmobile Division	489,023	76.95	10.42	482,311	75.76	10.40
F-85	207,653	66.93	4.42	159,246	66.55	3.43
Oldsmobile	256,574	85.60	5.47	295,862	80.21	6.38
Toronado	24,796	97.33	0.53	27,203	95.45	0.59
Pontiac Division	483,554	69.95	10.30	533,616	62.10	11.50
Pontiac	272,077	80.45	5.80	284,440	74.38	6.13
Tempest	129,147	54.12	2.74	131,503	45.67	2.83
Firebird	22,378	45.91	0.48	24,026	31.43	0.52
Grand Prix	59,952	91.18	1.28	93,647	83.25	2.02
CHECKER MOTORS	1,237	22.35	0.03	561	14.86	0.01
TOTAL	4,694,724	58.79	100.00	4,639,350	54.38	100.00

*—All Chrysler Corp. and Ford Motor Co. figures relate sales in U. S. of cars built both in U. S. and Canada.

Table A-8 (from Ref. A-1)

Each Maker's Tally and Percentage of Output . . .

Power Equipment in 1970 Models

	Power Brakes	Percent of Output	Power Seats	Percent of Output	Power Steering	Percent of Output	Power Side Windows	Percent of Output	Power Tailgate Window	Percent of Output
AMERICAN MOTORS	54,523	22.47	N.A.	....	125,992	51.92	2,234	0.92	13,385	5.52
Ambassador	37,086	61.87	N.A.	....	53,797	89.75	2,234	3.73	8,798	14.68
Hornet	1,628	2.21	N.A.	....	17,198	23.38	N.A.	....	N.A.	....
Rebel	8,382	16.86	N.A.	....	28,093	56.52	N.A.	....	4,587	9.23
Javelin	6,478	21.57	N.A.	....	21,131	70.36	N.A.		N.A.	....
AMX	179	4.35	N.A.	....	2,869	69.70	N.A.		N.A.	....
Gremlin	770	3.04	N.A.	....	2,904	11.48	N.A.	....	N.A.	....
CHRYSLER CORP.*	478,257	34.84	66,838	4.87	1,078,015	78.53	79,501	5.79	79,374	5.78
C-P Division	321,843	36.70	60,996	6.95	675,925	77.08	67,002	7.64	62,077	7.08
Valiant	6,812	2.82	N.A.	....	103,223	42.72	N.A.	....	N.A.	
Barracuda	10,311	19.82	N.A.	....	32,734	62.92	1,103	2.12	N.A.	....
Belvedere	26,806	17.85	N.A.	....	115,213	76.72	826	0.55	11,939	7.95
Fury	146,617	56.23	6,049	2.32	252,714	96.92	6,832	2.62	35,308	13.54
Total Plymouth	190,546	27.04	6,049	0.86	503,884	71.52	8,761	1.24	47,247	6.70
Chrysler	119,915	74.52	43,962	27.32	160,659	99.84	46,859	29.12	14,830	9.21
Imperial	11,382	100.00	10,985	96.51	11,382	100.00	11,382	100.00	N.A.	....
Dodge Division	156,414	31.54	5,842	1.18	402,090	81.07	12,499	2.52	17,297	3.49
Dart	5,337	3.09	N.A.	....	115,522	67.11	N.A.	....	N.A.	....
Coronet	23,197	21.42	N.A.	....	93,545	86.29	542	0.57	5,311	4.88
Challenger	20,649	26.90	N.A.	....	57,342	74.71	2,610	3.38	N.A.	....
Charger	26,283	57.19	N.A.	....	43,607	94.90	2,022	4.41	N.A.	....
Polara	80,948	87.32	5,842	6.30	92,074	99.31	7,325	7.90	11,986	12.93
FORD MOTOR CO.*	1,082,349	49.22	156,868	7.13	1,638,916	74.52	179,987	8.18	88,697	4.03
Ford Division	812,079	44.11	61,592	3.35	1,303,516	70.81	80,035	4.35	57,739	3.14
Falcon	N.A.	....	N.A.	....	4,001	27.39	N.A.	....	853	5.84
Torino	106,436	28.22	1,861	0.49	298,144	79.06	3,387	0.90	23,662	6.27
Ford	604,505	74.82	28,427	3.52	785,867	97.27	34,424	4.26	33,224	4.11
Maverick	N.A.	....	N.A.	....	39,077	9.34	N.A.	....	N.A.	....
Mustang	53,616	30.55	N.A.	....	128,905	73.45	N.A.	....	N.A.	....
Thunderbird	47,522	100.00	31,304	65.87	47,522	100.00	42,224	88.85	N.A.	....
L-M Division	270,270	75.45	95,276	26.60	335,400	93.63	99,952	27.90	30,958	8.64
Lincoln	36,603	100.00	36,603	100.00	36,603	100.00	36,603	100.00	N.A.	....
Mark III	20,506	100.00	20,506	100.00	20,506	100.00	20,506	100.00	N.A.	....
Montego	40,568	42.14	982	1.02	84,774	88.06	1,858	1.93	5,150	5.35
Mercury	128,315	92.03	37,185	26.67	136,918	98.20	37,115	26.62	25,808	18.51
Cougar	44,278	67.62	N.A.	....	62,599	95.60	3,870	5.91	N.A.	....
GENERAL MOTORS	2,867,208	68.82	595,204	14.29	3,803,895	91.31	772,718	18.55	254,369	6.11
Buick Division	554,307	83.17	172,711	25.91	657,324	98.62	202,450	30.38	9,954	1.49
Buick	393,720	97.76	138,648	34.43	402,351	99.90	158,837	39.44	N.A.	....
Riviera	37,336	100.00	28,728	76.94	37,336	100.00	33,427	89.53	N.A.	....
Skylark	123,251	54.43	5,335	2.36	217,637	96.12	9,889	4.37	9,954	4.40
Cadillac Division	236,239	100.00	234,100	99.09	236,239	100.00	236,239	100.00	N.A.	....
Cadillac	212,397	100.00	210,258	98.99	212,397	100.00	212,397	100.00	N.A.	....
Eldorado	23,842	100.00	23,842	100.00	23,842	100.00	23,842	100.00	N.A.	....
Chevrolet Division	966,813	49.93	20,490	1.06	1,619,259	83.62	67,266	3.47	151,770	7.84
Chevelle	180,113	40.75	N.A.	....	364,739	82.51	5,110	1.16	24,545	5.55
Nova	33,315	10.57	N.A.	....	157,738	50.06	N.A.	....	N.A.	....
Chevrolet	538,818	60.46	19,307	2.17	848,793	95.25	41,661	4.68	127,225	14.28
Corvette	8,984	51.88	N.A.	....	11,907	68.76	4,813	27.80	N.A.	....
Camaro	59,607	47.72	N.A.	....	92,640	74.17	N.A.	....	N.A.	....
Monte Carlo	145,976	100.00	1,183	0.81	143,442	98.26	15,682	10.74	N.A.	....
Oldsmobile Division	574,014	90.33	129,804	20.43	625,305	98.40	167,500	26.36	40,073	6.31
F-85	250,424	80.71	9,832	3.17	300,186	96.75	20,467	6.60	40,073	12.92
Oldsmobile	298,115	99.46	98,235	32.78	299,644	99.97	123,696	41.27	N.A.	....
Toronado	25,475	100.00	21,737	85.33	25,475	100.00	23,337	91.61	N.A.	....
Pontiac Division	535,835	77.51	38,099	5.51	665,768	96.31	99,263	14.36	52,572	7.60
Pontiac	313,511	92.70	25,054	7.41	336,290	99.44	54,660	16.16	44,207	13.07
Tempest	125,868	52.75	2,520	1.06	218,986	91.77	6,180	2.59	8,365	3.51
Firebird	30,706	63.00	N.A.	....	44,891	92.10	2,284	4.69	N.A.	....
Grand Prix	65,750	100.00	10,525	16.01	65,601	99.77	36,139	54.96	N.A.	....
CHECKER MOTORS	3,641	65.79	N.A.	....	3,998	72.24	35	0.63	74	1.34
TOTALS	4,485,978	56.17	818,910	10.25	6,650,816	83.28	1,034,475	12.95	418,602	5.24

*—All Chrysler Corp. and Ford Motor Co. figures relate to factory sales in U. S. of cars built both in U. S. and Canada.

Table A-9 (from Ref. A-1)

Count by Model and Percentage of Total . . .

Luxury-Comfort Options in '70s

	Radio	Percent of Output	Bucket Seats	Percent of Output	Vinyl Top	Percent of Output	Adjustable Steering Column	Percent of Output	Speed Regulating Devices	Percent of Output
AMERICAN MOTORS	148,088	61.03	48,655	20.05	36,176	14.91	11,741	4.84	4,572	1.88
Ambassador	48,806	81.42	3,753	6.26	14,118	23.55	7,919	13.21	4,306	7.18
Hornet	31,845	43.28	N.A.	....	5,226	7.10	N.A.	....	N.A.	....
Rebel	27,663	55.66	3,411	6.86	5,892	11.85	1,128	2.27	266	0.54
Javelin	22,408	74.61	30,034	100.00	10,940	36.41	1,871	6.23	N.A.	....
AMX	3,050	74.10	4,116	100.00	N.A.	....	823	20.00	N.A.	....
Gremlin	14,316	56.58	7,341	29.02	N.A.	....	N.A.	....	N.A.	....
CHRYSLER CORP.*	1,225,194	89.25	231,417	16.86	595,873	43.41	31,972	2.33	47,618	3.47
C-P Division	791,140	90.22	108,499	12.37	282,907	32.76	28,268	3.22	38,267	4.36
Valiant	202,944	84.01	23,239	9.62	35,535	14.71	N.A.	....	N.A.	....
Barracuda	50,162	96.42	43,185	83.01	22,636	43.51	N.A.	....	323	0.62
Belvedere	133,999	89.23	18,381	12.24	39,961	26.61	N.A.	....	646	0.43
Fury	235,270	90.23	8,422	3.23	80,909	31.03	3,729	1.43	5,528	2.12
Total Plymouth	622,375	88.34	93,227	13.23	179,041	25.41	3,729	0.53	6,497	0.92
Chrysler	157,392	97.81	14,177	8.81	92,881	57.72	16,784	10.43	24,186	15.03
Imperial	11,373	99.92	1,095	9.62	10,985	96.51	7,755	68.13	7,584	66.63
Dodge Division	434,054	87.51	122,918	24.78	312,966	63.10	3,709	0.75	9,351	1.89
Dart	151,849	88.21	3,788	2.19	107,774	62.61	N.A.	....	N.A.	....
Coronet	95,930	88.50	11,599	10.71	76,418	70.49	N.A.	....	976	0.94
Challenger	67,628	88.11	69,240	90.21	47,900	62.40	N.A.	....	921	1.19
Charger	40,666	88.51	36,622	79.72	39,241	85.38	N.A.	....	1,149	2.54
Polara	77,981	84.11	1,669	1.79	41,633	44.92	3,709	4.01	6,305	6.79
FORD MOTOR CO.*	1,991,353	90.55	149,816	6.81	855,275	38.89	139,657	6.35	67,746	3.08
Ford Division	1,645,371	89.38	71,103	3.86	637,325	34.62	64,006	3.48	28,057	1.52
Falcon	12,131	83.03	N.A.	....	N.A.	....	N.A.	....	N.A.	....
Torino	330,587	87.66	27,590	7.32	91,241	24.19	N.A.	....	N.A.	....
Ford	754,340	93.37	8,374	1.04	283,552	35.10	25,763	3.19	18,168	2.25
Maverick	348,830	83.40	N.A.	....	192,910	46.12	N.A.	....	N.A.	....
Mustang	159,424	90.84	17,500	100.00	26,880	15.32	3,982	2.27	N.A.	....
Thunderbird	40,059	84.30	17,589	37.01	42,742	89.94	34,261	72.10	9,889	20.81
L-M Division	345,982	96.59	78,713	21.97	217,950	60.84	75,651	21.12	39,689	11.08
Lincoln	36,482	99.67	N.A.	....	33,543	91.64	22,083	60.33	14,747	40.29
Mark III	20,481	99.88	N.A.	....	20,502	99.98	17,215	83.95	11,264	54.93
Montego	90,878	94.40	11,504	11.95	35,889	37.28	N.A.	....	N.A.	....
Mercury	134,102	96.18	1,729	1.24	86,292	61.89	28,430	20.39	13,678	9.81
Cougar	64,039	97.80	65,480	100.00	41,724	63.72	7,923	12.10	N.A.	....
GENERAL MOTORS	3,942,856	94.61	587,107	14.09	2,024,184	48.59	627,053	15.05	210,167	5.04
Buick Division	649,272	97.42	31,866	4.78	412,184	61.84	165,485	24.83	67,567	10.14
Buick	394,354	97.92	1,514	0.38	267,129	66.33	111,060	27.58	55,523	13.79
Riviera	36,791	98.54	10,347	27.71	32,671	87.51	37,336	100.00	9,613	25.75
Skylark	218,127	96.34	20,005	8.84	112,384	49.63	17,089	7.55	2,431	1.07
Cadillac Division	235,588	99.72	448	0.19	191,447	81.04	156,703	66.33	52,280	22.13
Cadillac	211,767	99.70	N.A.	....	169,043	79.59	135,903	63.99	43,332	20.40
Eldorado	23,821	99.91	448	1.88	22,404	93.97	20,800	87.24	8,948	37.53
Chevrolet Division	1,782,913	92.07	253,783	13.11	711,055	36.72	123,622	6.49	18,784	0.97
Chevelle	413,024	93.43	74,532	16.86	168,683	38.16	14,082	3.19	549	0.12
Nova	272,969	86.62	12,428	3.94	56,643	17.97	N.A.	....	N.A.	....
Chevrolet	822,515	92.30	N.A.	....	323,307	36.28	75,324	8.45	18,054	2.03
Corvette	16,991	98.12	17,316	100.00	832	4.80	5,803	33.51	N.A.	....
Camaro	119,365	95.57	124,901	100.00	43,221	34.60	6,735	5.39	N.A.	....
Monte Carlo	138,049	94.57	24,606	16.86	118,369	81.09	23,678	16.22	181	0.12
Oldsmobile Division	612,023	96.31	85,566	13.46	382,347	60.17	111,745	17.58	37,763	5.94
F-85	295,526	95.25	80,491	25.94	147,634	47.58	17,182	5.54	5,066	1.63
Oldsmobile	291,294	97.19	3,264	1.09	211,602	70.60	75,962	25.34	25,522	8.52
Toronado	25,203	98.93	1,811	7.11	23,111	90.72	18,601	73.02	7,175	28.16
Pontiac Division	663,060	95.91	215,444	31.16	327,151	47.32	67,498	9.76	33,773	4.89
Pontiac	325,127	96.14	N.A.	....	155,413	45.95	39,657	11.73	25,104	7.42
Tempest	227,006	95.13	106,807	44.76	102,442	42.93	5,460	2.28	2,320	0.97
Firebird	47,455	97.37	48,739	100.00	11,721	24.05	2,561	5.25	N.A.	....
Grand Prix	63,472	96.54	59,898	91.10	57,575	87.57	19,820	30.14	6,349	9.66
CHECKER MOTORS	1,082	19.55	121	2.19	58	1.05	N.A.	....	N.A.	....
TOTALS	7,308,573	91.52	1,017,116	12.74	3,511,566	43.97	810,423	10.15	330,103	4.13

*—All Chrysler Corp. and Ford Motor Co. figures relate to factory sales in U. S. of cars built both in U. S. and Canada.

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APPENDIX B-1

COMBINED MARKET CLASSES, SALES-WEIGHTED AVERAGES

Page

Total U.S. Sales B-1.1

Domestic Sales B-1.1

Import Sales B-1.2

Sales–Weighted Averages

ALL MARKET CLASSES

TOTAL UNITED STATES SALES

	SALES-WEIGHTED PARAMETERS									
YEAR	AIR CONDITIONING WEIGHT (W_{AC}) lb*	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb*	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
1958	NR	17	3714	118.2	206.8	78.0*	293.1	9.0	3967	88.6
1959	NR	16	3671						3955	
1960	9	21	3563						3836	
1961	10	20	3412						3712	
1962	13	20	3451	115.5	200.4	75.4*	257.5	8.7	3743	84.9
1963	17	24	3435						3742	
1964	21	25	3442						3726	
1965	27	30	3529						3805	
1966	33	36	3578	116.1	203.5	75.5	287.6	9.2	3831	87.4
1967	45	44	3588						3857	
1968	50	46	3591						3863	
1969	58	47	3634						3941	
1970	63	47	3570	113.6	200.8	74.9	296.7	9.0	3876	87.2
1971	67	38	3569						3886	
1972	70	30	3650	113.7	201.6	74.8	292.5	8.4	3942	87.9
1973	73	35	3572	112.0	202.2	74.0	285.5	8.2	3968	90.2

* DOMESTIC ONLY

ALL MARKET CLASSES

DOMESTIC SALES ONLY

	SALES-WEIGHTED PARAMETERS									
YEAR	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
1958	NR	17	3772	118.9	208.1	78.0	299.7	9.1	4096	89.2
1959	NR	16	3855						4132	
1960	9	21	3689						3957	
1961	10	20	3514						3813	
1962	13	20	3504	116.2	201.7	75.4	263.4	8.8	3821	85.5
1963	17	24	3513						3824	
1964	21	25	3535						3823	
1965	27	30	3636						3911	
1966	33	36	3679	117.5	206.0	76.6	300.2	9.3	3946	88.5
1967	45	44	3749						4007	
1968	50	46	3757						4020	
1969	58	47	3830						4135	
1970	63	47	3783	116.3	206.2	76.7	325.7	9.1	4118	89.9
1971	67	38	3807						4130	
1972	70	30	3857	116.2	207.8	76.4	318.7	8.4	4171	91.6
1973	73	35	3928	115.0	208.7	76.0	317.6	8.2	4223	93.7

Sales–Weighted Averages
ALL MARKET CLASSES

IMPORT SALES ONLY

	SALES-WEIGHTED PARAMETERS									
YEAR	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
1958	NR	NR	1790	94.6	161.1	NR	75.0	7.0	2116	66.5
1959	NR	NR	1946						2273	
1960	NR	NR	1953						2254	
1961	NR	NR	1879						2184	
1962	NR	NR	1806	95.0	162.0	NR	75.2	7.1	2126	67.0
1963	NR	NR	1889						2203	
1964	NR	NR	1899						2214	
1965	NR	NR	1849						2151	
1966	NR	NR	1928	94.9	162.0	61.3	83.4	7.6	2191	67.1
1967	NR	NR	2003						2361	
1968	NR	NR	2058						2407	
1969	NR	NR	2083						2407	
1970	NR	NR	2096	94.7	163.1	62.3	95.5	8.1	2406	68.4
1971	NR	NR	2158						2472	
1972	NR	NR	2154	95.2	163.8	62.7	103.0	8.1	2475	68.6
1973	NR	NR	2253	95.5	166.4	62.8	107.7	8.2	2544	70.9

APPENDIX B-2

BY-MARKET-CLASS SALES-WEIGHTED AVERAGES

Page

United States Totals

Standard Class B-2.1
Intermediate Class B-2.1
Compact Class B-2.2
Subcompact Class B-2.2

Domestic Sales

Compact Class B-2.3
Subcompact Class B-2.3

Import Sales

Compact Class B-2.4
Subcompact Class B-2.4

Domestic and United States Totals

Specialty Class B-2.5

Sales–Weighted Averages

UNITED STATES TOTALS

MARKET CLASS: STANDARD

YEAR	SALES-WEIGHTED PARAMETERS									
	AIR CONDITIONING WEIGHT (W_{AC}) lb*	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb*	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
1958	NR	18	3815	119.6	209.3	78.2*	304.6	9.1	4139	89.7
1959	NR	16	3973						4246	
1960	13	28	4067						4313	
1961	15	28	3975						4266	
1962	20	28	3978	120.5	211.6	78.7*	314.2	8.9	4271	91.1
1963	25	34	3923						4251	
1964	31	35	3941						4253	
1965	39	39	4005						4307	
1966	46	43	4061	120.9	214.8	79.5	330.7	9.4	4321	93.9
1967	61	49	4125						4341	
1968	67	53	4152						4342	
1969	77	54	4248						4575	
1970	88	56	4288	122.1	218.6	79.8	372.3	9.3	4639	96.5
1971	91	39	4408						4735	
1972	90	18	4481	123.4	221.8	79.5	371.4	8.4	4805	98.4
1973	95	21.4	4607	123.4	224.4	79.6	377.2	8.3	4907	101.0

* DOMESTIC ONLY

UNITED STATES TOTALS

MARKET CLASS: INTERMEDIATE

YEAR	SALES-WEIGHTED PARAMETERS									
	AIR CONDITIONING WEIGHT (W_{AC}) lb*	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb*	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
1958	NR	10	3191	116.6	201.8	74.8*	234.2	8.4	3635	85.2
1959	NR	12	3776						4038	
1960	4	16	3756						4079	
1961	2	9	2987						3251	
1962	4	11	2934	113.9	194.1	71.3*	197.8	8.7	3315	80.2
1963	7	12	3045						3310	
1964	12	17	3180						3437	
1965	16	24	3318						3557	
1966	21	33	3363	115.3	201.3	74.9	277.2	9.1	3673	86.0
1967	31	40	3450						379[illegible]	
1968	38	41	3503						3737	
1969	43	46	3505						3748	
1970	56	49	3655	115.5	205.0	76.5	317.0	9.2	3985	89.5
1971	65	50	3682						4043	
1972	75	52	3787	115.8	206.7	77.4	319.2	8.4	4049	90.9
1973	79	59	4009	115.1	210.1	77.7	327.0	8.3	4285	95.0

* DOMESTIC ONLY

Sales–Weighted Averages

UNITED STATES TOTALS

MARKET CLASS: COMPACT

YEAR	AIR CONDITIONING WEIGHT (W_{AC}) lb*	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb*	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
	SALES-WEIGHTED PARAMETERS									
1958	NR	10	3041	107.5	189.7	72.2*	190.0	8.7	3401	82.2
1959	NR	11	2897						3192	
1960	1	5	2679						2979	
1961	1	5	2655						2987	
1962	2	8	2723	108.6	184.4	70.4*	176.0	8.5	3041	75.8
1963	5	7	2713						3007	
1964	3	9	2721						2974	
1965	6	11	2828						3104	
1966	7	16	2823	109.0	187.1	70.8	194.5	8.7	3050	78.1
1967	7	17	2854						3142	
1968	10	17	2941						3274	
1969	13	18	2874						3202	
1970	18	23	2874	107.6	186.2	71.0	218.1	8.7	3225	78.6
1971	23	28	2978						3331	
1972	35	40	3027	109.7	189.8	71.4	240.5	8.5	3383	80.1
1973	40	47	3124	108.3	196.3	70.9	240.2	8.0	3406	88.0

* DOMESTIC ONLY

UNITED STATES TOTALS

MARKET CLASS: SUBCOMPACT

YEAR	AIR CONDITIONING WEIGHT (W_{AC}) lb*	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb*	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
	SALES-WEIGHTED PARAMETERS									
1958	NR	0	1968	94.6	163.2	73.0*	104.0	7.2	2312	68.6
1959	NR	0	1969						2294	
1960	0	4	2044						2344	
1961	1	5	2089						2376	
1962	0	8	2088	96.5	165.6	70.0*	118.2	7.3	2425	69.1
1963	6	8	2041						2352	
1964**	NR	NR	1787						2093	
1965**	NR	NR	1798						2103	
1966**	NR	NR	1909	94.5	161.4	61.1	82.2	7.5	2172	66.9
1967**	NR	NR	1943						2313	
1968**	NR	NR	2002						2351	
1969**	NR	NR	2023						2343	
1970	8	11	2093	94.4	162.4	62.9	99.7	8.0	2393	68.0
1971	10	10	2139						2427	
1972	17	6	2214	95.1	164.6	64.8	115.5	8.0	2551	69.5
1973	24	10	2289	95.0	166.5	64.5	116.5	8.1	2571	71.5

* DOMESTIC ONLY

** IMPORTS ONLY (NO DOMESTIC SUBCOMPACTS)

Sales–Weighted Averages

DOMESTIC SALES ONLY

MARKET CLASS: COMPACT

	SALES-WEIGHTED PARAMETERS									
YEAR	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
1958	NR	10	3135	108.0	191.1	72.2	200.1	8.7	3500	83.1
1959	NR	11	2956						3244	
1960	1	5	2686						2985	
1961	1	5	2661						2994	
1962	2	8	2726	108.7	184.5	70.4	176.5	8.5	3044	75.8
1963	5	7	2714						3007	
1964	3	9	2724						2976	
1965	6	11	2835						3110	
1966	7	16	2840	109.3	187.5	71.1	197.3	8.7	3066	78.2
1967	7	17	2874						3170	
1968	10	17	2954						3284	
1969	13	18	2876						3199	
1970	18	23	2878	107.7	186.4	71.1	221.9	8.6	3230	78.7
1971	23	28	2982						3341	
1972	35	40	3036	110.0	190.1	71.5	244.6	8.5	3393	80.1
1973	40	47	3144	108.6	197.1	71.2	247.9	7.9	3427	88.5

DOMESTIC SALES ONLY

MARKET CLASS: SUBCOMPACT

	SALES-WEIGHTED PARAMETERS									
YEAR	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
1958	NR	0	2450	96.6	171.8	73.0	171.8	8.1	2830	75.2
1959	NR	0	2671						3000	
1960	0	4	2694						3000	
1961	1	5	2757						3000	
1962	0	8	2636	100.0	173.1	70.0	195.6	8.0	3000	73.1
1963	6	8	2700						3000	
1964*										
1965*										
1966*										
1967*										
1968*										
1969*										
1970	8	11	2272	95.1	163.6	69.1	140.3	8.5	2506	68.5
1971	10	10	2219						2454	
1972	17	6	2329	95.5	166.8	68.1	134.1	8.0	2690	71.3
1973	24	10	2454	95.6	169.6	67.9	138.0	8.1	2718	74.0

*NO DOMESTIC SUBCOMPACT

Sales–Weighted Averages

IMPORT SALES ONLY

MARKET CLASS: COMPACT

YEAR	SALES-WEIGHTED PARAMETERS									
	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
1958	NR	NR	2183	102.5	177.0	NR	97.6	8.2	2500	74.5
1959	NR	NR	2548						2889	
1960	NR	NR	2521						2844	
1961	NR	NR	2415						2724	
1962	NR	NR	2419	102.3	175.2	NR	108.5	8.5	2715	72.9
1963	NR	NR	2669						2990	
1964	NR	NR	2610						2889	
1965	NR	NR	2613						2874	
1966	NR	NR	2304	102.0	174.6	63.6	102.8	8.7	2560	72.6
1967	NR	NR	2764						2898	
1968	NR	NR	2804						3174	
1969	NR	NR	2858						3241	
1970	NR	NR	2788	103.3	183.2	68.1	130.8	9.2	3127	79.9
1971	NR	NR	2934						3226	
1972	NR	NR	2762	103.5	182.6	68.0	132.4	9.2	3086	79.1
1973	NR	NR	2879	104.9	186.1	67.5	145.1	8.4	3150	81.2

IMPORT SALES ONLY

MARKET CLASS: SUBCOMPACT

YEAR	SALES-WEIGHTED PARAMETERS									
	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
1958	NR	NR	1742	93.7	159.1	NR	72.3	6.8	2070	65.4
1959	NR	NR	1838						2162	
1960	NR	NR	1865						2162	
1961	NR	NR	1824						2129	
1962	NR	NR	1767	94.5	161.1	NR	73.0	7.0	2089	66.6
1963	NR	NR	1824						2138	
1964	NR	NR	1787						2093	
1965	NR	NR	1798						2103	
1966	NR	NR	1909	94.5	161.4	61.1	82.2	7.5	2172	66.9
1967	NR	NR	1943						2313	
1968	NR	NR	2002						2351	
1969	NR	NR	2023						2343	
1970	NR	NR	2068	94.4	162.2	62.1	94.0	8.0	2377	66.9
1971	NR	NR	2095						2411	
1972	NR	NR	2129	94.9	163.0	62.4	101.8	8.0	2449	68.1
1973	NR	NR	2180	94.6	164.5	62.2	102.4	8.2	2473	69.9

Sales–Weighted Averages

DOMESTIC AND UNITED STATES TOTALS

MARKET CLASS: SPECIALTY

	SALES-WEIGHTED PARAMETERS									
YEAR	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb	OVERHANG (OAL–WB) in.
1958	NR	14	3945	114.5	205.5	80.1	355.5	10.2	4111	91.0
1959	NR	32	3963						4365	
1960	15	47	3930						4380	
1961	18	16	3984						4385	
1962	34	27	4168	114.0	203.9	76.1	383.3	9.9	4660	89.9
1963	28	18	4118						4582	
1964	21	11	3300						3583	
1965	12	16	3154						3338	
1966	21	22	3208	112.0	187.8	70.4	288.2	9.5	3439	75.8
1967	25	44	3297						3538	
1968	31	48	3445						3777	
1969	44	51	3615						3947	
1970	53	45	3639	111.3	196.9	74.7	339.2	9.4	3807	85.6
1971	68	42	3836						4093	
1972	73	36	3953	114.9	204.4	76.1	374.2	8.4	4240	89.5
1973	79	34	4048	114.4	207.0	75.2	369.8	8.3	4407	92.6

APPENDIX B-3

BY-NAMEPLATE SALES-WEIGHTED AVERAGES (MARKET CLASS AND TOTALS)

Nameplate	Page
American Motors	B-3.1
Buick	B-3.4
Cadillac	B-3.7
Capri	B-3.10
Chevrolet	B-3.11
Chrysler	B-3.14
Colt	B-3.17
Datsun	B-3.18
DeSoto	B-3.20
Dodge	B-3.21
Fiat	B-3.24
Ford	B-3.26
Imperial	B-3.29
Lincoln	B-3.32
Mercury	B-3.35
Oldsmobile	B-3.38
Opel	B-3.41
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Studebaker	B-3.50
Studebaker-Packard	B-3.51
Toyota	B-3.52
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By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: AMERICAN MOTORS

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	37,107	72.4	47.9	3869	122.0	210.9	77.2	304.0	8.4	4123
INTERMEDIATE	43,067	37.1	37.3	3552	118.0	208.3	77.2	286.4	8.3	3609
COMPACT	79,880	27.2	28.7	2897	108.0	179.3	70.6	239.4	8.0	3198
SUB-COMPACT	94,037	19.5	7.5	2695	96.0	161.3	70.6	241.9	8.1	3000
SPECIALTY	24,226	31.2	55.4	3312	110.0	191.8	75.2	297.1	8.4	3500
AVERAGE OF ALL MARKET CLASSES		32.5	27.8	3096	107.5	183.0	72.9	261.2	8.2	3344
TOTAL SALES	278,317									

NAMEPLATE: AMERICAN MOTORS

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE	101,219	42.7	37.5	3704	118.4	204.0	77.2	283.9	8.9	3913
COMPACT	84,000	9.5	11.1	2882	108.0	179.3	70.6	206.7	8.5	3000
SUB-COMPACT	39,701	6.7	13.0	2683	96.0	161.3	70.6	199.0	8.5	3000
SPECIALTY	29,407	17.8	38.8	3261	107.5	189.5	71.9	298.4	9.0	3500
AVERAGE OF ALL MARKET CLASSES		23.2	25.1	3222	110.2	187.5	73.4	246.8	8.7	3421
TOTAL SALES	254,327									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: AMERICAN MOTORS

YEAR: 1966

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE	184,155	14.8	21.6	3280	113.5	196.8	74.5	250.7	8.6	3500
COMPACT	75,843	4.5	20.1	2861	106.0	181.0	69.5	230.0	8.7	3059
SUB-COMPACT										
SPECIALTY	5,714	8.6	21.8	3320	112.0	195.0	74.5	250.7	8.6	3500
AVERAGE OF ALL MARKET CLASSES		11.7	21.2	3161	111.3	192.2	73.1	244.8	8.6	3374
TOTAL SALES	265,712									

NAMEPLATE: AMERICAN MOTORS

YEAR: 1962

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT	308,521	4.6	8.5	3078	108.0	190.0	72.4	215.8	8.7	3500
SUB-COMPACT	138,130	0.0	7.5	2636	100.0	173.1	70.0	195.6	8.0	3000
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		3.4	8.2	2958	105.8	185.4	71.8	210.3	8.5	3365
TOTAL SALES	423,104									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: AMERICAN MOTORS

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE	14,573	NR	10.4	3603	117.0	200.1	72.2	327.0	9.7	4000
COMPACT	127,765	NR	10.4	3135	108.0	191.1	72.2	200.1	8.7	3500
SUB-COMPACT	53,905	NR	0.4	2450	96.6	171.8	73.0	171.8	8.1	2830
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	7.6	2982	105.5	186.5	72.4	201.8	8.6	3353
TOTAL SALES	196,243									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: BUICK

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	374,555	93.0	29.0	4563	125.5	223.9	79.7	410.7	8.5	5036
INTERMEDIATE	202,642	93.0	35.0	3784	115.1	206.0	76.5	350.0	8.5	4032
COMPACT										
SUB-COMPACT										
SPECIALTY	32,217	99.0	50.0	4642	122.0	217.3	79.5	455.0	8.5	5000
AVERAGE OF ALL MARKET CLASSES		93.3	32.1	4308	121.8	217.6	78.6	392.8	8.5	4701
TOTAL SALES	609,414									

NAMEPLATE: BUICK

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	296,184	85.6	70.6	4479	125.1	222.4	80.0	427.1	9.7	4767
INTERMEDIATE	172,161	63.2	52.8	3782	114.1	204.7	77.3	379.3	9.7	4029
COMPACT										
SUB-COMPACT										
SPECIALTY	24,862	81.4	56.3	4480	119.0	215.5	79.3	455.0	10.0	5000
AVERAGE OF ALL MARKET CLASSES		77.6	63.7	4236	120.9	215.9	79.0	411.8	9.7	4521
TOTAL SALFS	493,207									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: BUICK

YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	312,472	54.7	62.5	4290	124.6	219.5	80.0	372.1	9.7	4649
INTERMEDIATE	211,141	27.7	42.1	3403	115.0	204.0	75.5	286.3	9.0	3582
COMPACT										
SUB-COMPACT										
SPECIALTY	45,518	74.9	42.0	4223	119.0	211.2	79.3	425.0	10.3	4500
AVERAGE OF ALL MARKET CLASSES		46.3	53.3	3956	120.6	213.1	78.3	344.5	9.5	4241
TOTAL SALES	569,131									

NAMEPLATE: BUICK

YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	239,847	42.3	46.1	4384	123.7	215.5	78.0	401.0	10.25	4645
INTERMEDIATE	152,312	9.4	8.3	2871	112.1	188.4	71.3	200.1	8.8	3062
COMPACT										
SUB-COMPACT										
SPECIALTY	8,108	23.4	11.9	4153	117.0	208.0	76.6	401.0	10.25	4500
AVERAGE OF ALL MARKET CLASSES		29.4	31.0	3804	119.2	205.1	75.4	324.6	9.7	4040
TOTAL SALES	400,267									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: BUICK

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	262,028	NR	31.3	4468	123.4	214.1	78.5	364	9.7	4629
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	31.3	4468	123.4	214.1	78.5	364	9.7	4629
TOTAL SALES	262,028									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: CADILLAC

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	204,979	100.0	34.0	5044	130.7	227.6	79.8	472.0	8.5	5500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY	38,042	100.0	14.0	5006	126.3	222.7	79.8	500	8.5	5500
AVERAGE OF ALL MARKET CLASSES		100.0	30.9	5038	130.0	226.8	79.8	476.4	8.5	5500
TOTAL SALES	243,021									

NAMEPLATE: CADILLAC

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	148,957	118.6	34.1	5018	130.2	225.7	79.8	472	10.0	5477
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY	16,085	119.6	15.8	4909	120.0	221.0	79.9	500	10.0	5000
AVERAGE OF ALL MARKET CLASSES		118.7	32.3	5007	129.2	225.2	79.8	474.7	10.0	5430
TOTAL SALES	165,042									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: CADILLAC YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	192,686	106.7	13.9	4793	129.9	224.8	79.9	429.0	10.5	5011
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY	3812	109.0	36.1	4801	129.5	224.0	79.9	429.0	10.5	5000
AVERAGE OF ALL MARKET CLASSES		106.7	14.3	4793	129.9	224.8	79.9	429.0	10.5	5011
TOTAL SALES	196,498									

NAMEPLATE: CADILLAC YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	151,508	81.9	49.3	4936	129.9	222.5	79.9	390.0	10.5	5054
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		81.9	49.3	4936	129.9	222.5	79.9	390.0	10.5	5054
TOTAL SALES	151,508									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: CADILLAC

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	122,195	NR	29.6	4871	130.4	218.2	80.0	365.0	10.25	5065
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	29.6	4871	130.4	218.2	80.0	365.0	10.25	5065
TOTAL SALES	122,195									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: CAPRI **YEAR:** 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	80,628	NR	NR	2206	100.8	167.8	64.8	122.0	8.2	2500
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2206	100.8	167.8	64.8	122.0	8.2	2500
TOTAL SALES	80,628									

NAMEPLATE: CAPRI **YEAR:** 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	15,628	NR	NR	2187	100.8	167.8	64.8	97.6	8.4	2500
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2197	100.8	167.8	64.8	97.6	8.4	2500
TOTAL SALES	15,628									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: CHEVROLET YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	921,703	85.0	13.0	4457	122.1	220.8	79.5	350.0	8.5	4672
INTERMEDIATE	344,000	63.0	57.0	3675	115.9	206.4	75.4	304.0	8.5	4041
COMPACT	297,955	25.0	41.0	3172	111.0	189.4	72.4	284.0	8.5	3500
SUB-COMPACT	307,327	19.0	7.0	2353	97.0	169.7	65.4	140.0	8.0	2750
SPECIALTY	263,252	79.0	23.4	3670	112.9	201.0	74.8	341.9	8.5	3914
AVERAGE OF ALL MARKET CLASSES		62.8	19.4	3752	114.8	204.3	75.2	302.1	8.4	4037
TOTAL SALES	2,134,237									

NAMEPLATE: CHEVROLET YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	732,104	73.2	48.1	4175	119.0	216.1	79.8	347.5	9.0	4582
INTERMEDIATE	381,054	42.5	53.5	3591	114.2	199.9	75.4	303.3	9.0	4045
COMPACT	240,396	14.3	26.9	3140	111.0	189.4	72.4	263.5	8.7	3500
SUB-COMPACT	22,520	12.2	8.5	2276	97.0	169.7	65.4	140.0	8.0	2500
SPECIALTY	286,137	51.6	42.9	3516	110.6	195.1	74.5	325.7	9.1	3712
AVERAGE OF ALL MARKET CLASSES		53.1	44.8	3752	115.0	204.3	76.6	318.7	9.0	4125
TOTAL SALES	1,662,211									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: CHEVROLET

YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	1,436,854	34.3	32.3	3809	119.0	213.1	79.6	278.4	9.1	4062
INTERMEDIATE	407,960	15.6	23.9	3252	115.0	197.0	75.0	259.8	9.1	3538
COMPACT	247,919	4.5	15.1	2781	109.3	183.8	70.7	198.4	8.6	3056
SUB-COMPACT										
SPECIALTY	66,078	20.4	32.2	3182	104.2	181.1	71.3	310.8	9.8	3500
AVERAGE OF ALL MARKET CLASSES		26.9	28.7	3566	116.7	205.7	77.5	266.7	9.1	3830
TOTAL SALES	2,158,811									

NAMEPLATE: CHEVROLET

YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	1,429,212	10.3	21.6	3763	119.0	209.6	79.0	268.8	8.4	4065
INTERMEDIATE										
COMPACT	633,578	2.1	8.1	2635	109.1	182.1	69.0	170.3	8.3	2893
SUB-COMPACT										
SPECIALTY	15,239	0	9.8	3051	102.0	176.7	70.4	327.0	10.5	3500
AVERAGE OF ALL MARKET CLASSES		7.7	17.4	3414	115.9	201.0	75.9	239.2	8.4	3704
TOTAL SALES	2,078,029									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: CHEVROLET

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	1,218,516	NR	10.4	3672	117.5	209.1	77.7	264.7	8.4	4000
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY	8,702	NR	NR	2913	102.0	177.2	NR	283.0	9.5	3000
AVERAGE OF ALL MARKET CLASSES		NR	10.4	3667	117.4	208.9	77.7	264.9	8.4	3993
TOTAL SALES	1,227,218									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: CHRYSLER **YEAR:** 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	166,237	95.0	37.1	4487	124.0	224.4	79.4	393.7	8.5	4684
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		95.0	37.1	4487	124.0	224.4	79.4	393.7	8.5	4684
TOTAL SALES	166,237									

NAMEPLATE: CHRYSLER **YEAR:** 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	153,168	126.5	60.2	4481	123.8	224.7	79.1	400.3	9.0	4699
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		126.5	60.2	4481	123.8	224.7	79.1	400.3	9.0	4699
TOTAL SALES	153,168									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: CHRYSLER

YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	230,182	56.0	61.3	4293	123.8	219.7	79.5	393.7	9.5	4537
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		56.0	61.3	4293	123.8	219.7	79.5	393.7	9.5	4537
TOTAL SALES	230,182									

NAMEPLATE: CHRYSLER

YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	114,131	21.1	40.2	4043	122.7	215.1	79.4	374.5	9.4	4440
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		21.1	40.2	4043	122.7	215.1	79.4	374.5	9.4	4440
TOTAL SALES	114,131									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: CHRYSLER **YEAR:** 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	58,345	NR	21.3	4222	124.2	219.2	79.6	364.8	10.0	4500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	21.3	4222	124.2	219.2	79.6	364.8	10.0	4500
TOTAL SALES	58,345									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: COLT

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	30,989	NR	NR	2164	95.3	160.8	61.5	97.5	8.5	2500
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES				2164	95.3	160.8	61.5	97.5	8.5	2500
TOTAL SALES	30,989									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: DATSUN

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	172,882	NR	NR	2058	92.5	158.3	61.4	100.5	8.8	2390
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES				2058	92.5	158.3	61.4	100.5	8.8	2390
TOTAL SALES	172,883									

NAMEPLATE: DATSUN

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	100,941	NR	NR	2174	94.1	160.8	61.3	100.2	8.6	2477
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2174	94.1	160.8	61.3	100.2	8.6	2477
TOTAL SALES	100,941									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: DATSUN

YEAR: 1966

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	21,726	NR	NR	2083	93.5	157.3	58.7	80.6	8.3	2363
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2083	93.5	157.3	58.7	80.6	8.3	2363
TOTAL SALES	21,726									

NAMEPLATE: DATSUN

YEAR: 1962

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	1,800	NR	NR	2049	89.8	152.0	NR	72.5	7.5	2250
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2049	89.8	152.0	NR	72.5	7.5	2250
TOTAL SALES	1,800									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: DESOTO

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	47,639	NR	34.3	4016	124.3	217.7	78.3	356.4	10.0	4290
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	34.3	4016	124.3	217.7	78.3	356.4	10.0	4290
TOTAL SALES	47,639									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: DODGE

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	115,294	92.1	21.8	4186	122.0	220.5	79.5	326.7	8.6	4577
INTERMEDIATE	146,929	76.9	58.1	3697	116.7	207.2	77.5	314.0	8.6	4070
COMPACT	202,989	61.7	56.0	3104	111.0	196.2	69.6	240.6	8.5	3500
SUB-COMPACT										
SPECIALTY	23,458	47.4	52.9	3436	110.0	191.3	76.3	314.6	8.6	3500
AVERAGE OF ALL MARKET CLASSES		72.8	48.4	3553	115.3	205.0	74.6	286.5	8.6	3926
TOTAL SALES	488,670									

NAMEPLATE: DODGE

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	97,401	77.7	58.2	4223	122.0	220.4	79.2	333.2	8.8	4570
INTERMEDIATE	110,884	46.9	46.3	3579	117.0	209.5	76.7	308.9	8.8	4000
COMPACT	184,230	29.6	38.3	3052	111.0	196.2	69.7	237.6	8.8	3500
SUB-COMPACT										
SPECIALTY	92,962	42.9	66.5	3579	112.7	197.8	76.3	351.1	9.1	4000
AVERAGE OF ALL MARKET CLASSES		45.7	49.5	3508	114.9	204.4	74.5	294.8	8.9	3924
TOTAL SALES	485,477									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: DODGE

YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	132,587	53.4	61.6	4219	121.0	214.1	80.0	383.0	9.2	4585
INTERMEDIATE	215,909	21.8	40.1	3449	117.0	203.6	75.3	264.1	8.7	3559
COMPACT	160,344	10.5	21.0	2928	111.0	195.4	70.8	185.1	8.5	3077
SUB-COMPACT										
SPECIALTY	34,720	28.0	46.1	3767	117.0	203.6	75.3	318.0	9.0	4000
AVERAGE OF ALL MARKET CLASSES		26.5	40.1	3504	116.2	203.7	75.1	273.2	8.8	3695
TOTAL SALES	543,560									

NAMEPLATE: DODGE

YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	41,797	16.6	64.2	4108	122.0	214.4	78.7	361.0	9.0	4303
INTERMEDIATE	148,690	8.2	22.3	3302	116.2	202.6	76.5	314.6	8.9	3630
COMPACT	47,566	3.1	7.6	2668	106.5	188.8	72.3	170.0	8.2	3000
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		9.0	26.7	3317	115.3	201.9	76.0	293.9	8.8	3622
TOTAL SALES	238,053									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: DODGE

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	134,931	NR	34.4	3756	122.0	213.8	78.2	326.7	9.2	4000
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	34.4	3756	122.0	213.8	78.2	326.7	9.2	4000
TOTAL SALES	134,931									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: FIAT

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	51,911	NR	NR	1903	91.1	154.8	62.3	76.5	8.8	2205
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	1903	91.1	154.8	62.3	76.5	8.8	2205
TOTAL SALES	51,911									

NAMEPLATE: FIAT

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	36,642	NR	NR	1875	86.9	153.0	61.2	70.8	9.1	2250
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	1875	86.9	153.0	61.2	70.8	9.1	2250
TOTAL SALES	36,642									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: FIAT

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	21,175	NR	NR	1732	85.6	141.3	NR	56.8	7.5	2000
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	1732	85.6	141.3	NR	56.8	7.5	2000
TOTAL SALES	21,175									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: FORD YEAR: 1972

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	710,207	82.2	60.2	4309	121.0	219.1	79.6	339.6	8.3	4649
INTERMEDIATE	421,407	65.0	37.0	3859	117.8	208.3	79.2	295.5	8.4	4108
COMPACT	214,836	28.0	29.0	2728	106.5	182.9	70.6	196.0	8.3	3000
SUB-COMPACT	407,650	15.0	5.0	2227	94.2	165.9	69.5	104.8	8.1	2574
SPECIALTY	161,676	58.4	42.7	3710	112.7	198.2	75.8	355.7	8.4	3991
AVERAGE OF ALL MARKET CLASSES		56.0	38.4	3539	112.3	199.6	76.0	265.2	8.3	3848
TOTAL SALES	1,915,776									

NAMEPLATE: FORD YEAR: 1970

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	838,366	77.8	73.7	4073	121.0	215.5	79.8	346.4	9.1	4458
INTERMEDIATE	351,304	69.9	35.4	3622	117.0	206.6	76.5	293.2	9.4	4000
COMPACT	377,794	13.5	13.6	2570	103.9	179.9	71.1	174.6	8.3	2808
SUB-COMPACT	76,038	7.7	9.9	2056	94.0	163.0	69.4	109.8	8.7	2250
SPECIALTY	205,167	39.0	37.5	3443	109.4	192.8	73.0	316.0	9.5	3810
AVERAGE OF ALL MARKET CLASSES		56.0	47.5	3527	114.3	201.9	76.2	288.1	9.0	3871
TOTAL SALES	1,848,669									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: FORD **YEAR:** 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	939,816	31.4	38.7	3857	119.0	210.0	79.0	284.4	9.3	4100
INTERMEDIATE	281,397	11.8	20.9	3225	115.6	197.4	74.4	273.8	9.3	3571
COMPACT	162,113	6.1	9.7	2839	111.4	187.7	73.2	205.2	9.2	3119
SUB-COMPACT										
SPECIALTY	608,194	13.4	15.9	3024	108.6	184.2	68.8	267.2	9.4	3222
AVERAGE OF ALL MARKET CLASSES		21.0	26.9	3430	114.7	198.5	74.8	271.2	9.3	3677
TOTAL SALES	1,991,520									

NAMEPLATE: FORD **YEAR:** 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	699,950	7.5	19.0	3867	119.0	209.3	79.2	278.7	8.7	4088
INTERMEDIATE	341,703	1.8	19.0	3076	115.5	197.8	71.3	211.1	8.7	3524
COMPACT	355,886	0	3.4	2514	109.5	183.5	70.6	144.0	8.7	2827
SUB-COMPACT										
SPECIALTY	73,975	44.4	16.5	4460	113.0	205.0	76.0	390.0	9.6	5000
AVERAGE OF ALL MARKET CLASSES		6.2	15.1	3386	115.6	200.2	75.1	236.0	8.7	3698
TOTAL SALES	1,471,514									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: FORD

YEAR: 1958

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	1,015,965	NR	11.3	3516	117.1	204.9	78.0	277.0	9.0	3887
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY	45,028	NR	10.4	3855	113.0	205.4	NR	352.0	10.2	4000
AVERAGE OF ALL MARKET CLASSES		NR	11.3	3531	116.9	204.9	78.0	280.2	9.1	3892
TOTAL SALES	1,060,993									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: IMPERIAL

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	13,601	0.0	66.0	5077	127.0	229.5	79.6	440.0	8.2	5500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		0.0	66.0	5077	127.0	229.5	79.6	440.0	8.2	5500
TOTAL SALES	13,601									

NAMEPLATE: IMPERIAL

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	10,753	144.5	47.2	5052	127.0	229.7	79.1	440.0	9.7	5500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		144.5	47.2	5052	127.0	229.7	79.1	440.0	9.7	5500
TOTAL SALES	10,753									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: IMPERIAL YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	14,609	101.8	54.0	5402	129.0	227.8	80.0	440.0	10.1	5500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		101.8	54.0	5402	129.0	227.8	80.0	440.0	10.1	5500
TOTAL SALES	14,609									

NAMEPLATE: IMPERIAL YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	13,558	60.3	48.3	4913	129.0	227.1	81.7	413.0	10.1	5345
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		60.3	48.3	4913	129.0	227.1	81.7	413.0	10.1	5345
TOTAL SALES	13,558									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: IMPERIAL

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	14,801	NR	29.6	4758	129.0	225.8	81.2	392.0	10.0	5000
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	29.6	4758	129.0	225.8	81.2	392.0	10.0	5000
TOTAL SALES	14,801									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: LINCOLN YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	42,457	0.0	6.0	5068	127.0	220.1	79.2	460.0	8.5	5500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY	47,064	0.0	0.0	4979	120.4	220.1	79.2	460.0	8.5	5500
AVERAGE OF ALL MARKET CLASSES		0.0	2.8	5021	123.5	220.1	79.2	460.0	8.5	5500
TOTAL SALES	89,521									

NAMEPLATE: LINCOLN YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	34,553	94.6	19.4	4949	127.0	225.0	79.6	460.0	10.5	5000
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY	22,101	94.9	20.0	4938	117.2	216.1	79.4	460.0	10.5	5000
AVERAGE OF ALL MARKET CLASSES		94.7	19.6	4945	123.2	221.5	79.5	460.0	10.5	5000
TOTAL SALES	56,654									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: LINCOLN

YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	49,324	85.9	62.4	5484	126.0	220.9	79.7	462.0	10.3	5500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		85.9	62.4	5484	126.0	220.9	79.7	462.0	10.3	5500
TOTAL SALES	49,324									

NAMEPLATE: LINCOLN

YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	31,533	84.0	43.4	5330	123.0	213.0	78.6	430.0	10.0	5500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		84.0	43.4	5330	123.0	213.0	78.6	430.0	10.0	5500
TOTAL SALES	31,533									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: LINCOLN

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	15,935	NR	29.6	5157	131.0	229.0	80.1	430	10.5	5500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY	10,542	NR	29.6	5182	131.0	229.0	80.1	430	10.5	5500
AVERAGE OF ALL MARKET CLASSES		NR	29.6	5167	131.0	229.0	80.1	430.0	10.5	5500
TOTAL SALES	26,477									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: MERCURY

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	152,876	93.0	30.0	4611	124.0	224.1	79.4	407.8	8.6	4845
INTERMEDIATE	113,337	80.0	76.0	3882	117.1	211.3	78.7	300.2	8.5	4000
COMPACT	62,134	34.0	35.0	2854	107.6	186.3	70.7	220.4	8.4	3000
SUB-COMPACT										
SPECIALTY	45,315	57.0	73.0	3652	112.1	196.7	75.1	351.0	8.6	4000
AVERAGE OF ALL MARKET CLASSES		74.9	50.0	3981	117.8	210.6	77.2	337.1	8.5	4179
TOTAL SALES	373,662									

NAMEPLATE: MERCURY

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	144,963	85.5	78.7	4442	123.4	222.3	79.8	407.0	9.9	4812
INTERMEDIATE	87,324	47.5	41.8	3525	117.0	210.0	77.2	295.2	9.4	4000
COMPACT	12,524	23.0	28.3	2766	106.5	185.2	70.7	221.3	8.8	3000
SUB-COMPACT										
SPECIALTY	65,564	53.7	53.1	3608	111.1	196.1	74.1	302.0	9.5	4000
AVERAGE OF ALL MARKET CLASSES		65.6	60.9	3940	118.3	211.8	77.5	345.9	9.6	4339
TOTAL SALES	310,375									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: MERCURY

YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	153,747	45.0	56.5	4288	122.4	219.7	79.6	394.4	9.7	4581
INTERMEDIATE	133,533	9.5	19.1	3233	115.8	202.8	73.8	252.1	9.3	3536
COMPACT										
SUB-COMPACT										
SPECIALTY	20,769	23.3	55.7	3192	111.0	190.3	71.2	289.0	9.3	3500
AVERAGE OF ALL MARKET CLASSES		28.2	40.2	3757	118.7	210.4	76.5	325.6	9.5	4055
TOTAL SALES	308,049									

NAMEPLATE: MERCURY

YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	105,521	19.8	51.9	4083	120.0	215.0	79.5	286.9	8.8	4500
INTERMEDIATE	216,296	0.8	4.6	2786	114.9	197.7	70.7	169.6	8.7	3181
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		7.0	20.1	3211	116.6	203.4	73.6	208.1	8.7	3614
TOTAL SALES	321,817									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: MERCURY

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	136,121	NR	34.4	4317	122.0	215.0	81.1	377.0	10.3	4500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	34.4	4317	122.0	215.0	81.1	377.0	10.3	4500
TOTAL SALES	136,121									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: OLDSMOBILE YEAR: 1972

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	338,070	112.0	27.0	4626	125.0	224.1	79.4	389.1	8.5	5037
INTERMEDIATE	299,440	96.0	62.0	3888	113.8	205.4	76.8	350.0	8.5	4055
COMPACT	8898	35.0	40.0	3523	111.0	197.5	72.4	310.0	8.4	4000
SUB-COMPACT										
SPECIALTY	44,118	121.0	47.0	4844	122.0	220.3	79.8	455.0	8.5	5000
AVERAGE OF ALL MARKET CLASSES		104.6	43.6	4306	119.8	215.4	78.2	375.3	8.5	4595
TOTAL SALES	690,526									

NAMEPLATE: OLDSMOBILE YEAR: 1970

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	207,734	85.6	25.5	4362	124.9	220.9	79.9	408.9	9.4	4651
INTERMEDIATE	237,418	66.9	63.5	3820	112.9	206.3	76.8	348.2	9.5	4073
COMPACT										
SUB-COMPACT										
SPECIALTY	16,554	103.1	50.3	4628	119.0	214.3	78.8	455.0	10.3	5000
AVERAGE OF ALL MARKET CLASSES		76.6	45.9	4093	118.5	213.4	78.3	379.3	9.5	4366
TOTAL SALES	461,706									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: OLDSMOBILE YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	312,129	73.0	60.3	4329	123.8	218.7	80.0	413.7	10.2	4641
INTERMEDIATE	235,618	46.1	49.0	3496	115.0	204.2	75.4	324.0	9.5	4000
COMPACT										
SUB-COMPACT										
SPECIALTY	32,803	81.1	30.2	4591	119.0	211.0	78.5	425.0	10.5	5000
AVERAGE OF ALL MARKET CLASSES		62.5	54.0	4006	120.0	212.4	78.0	377.9	9.9	4401
TOTAL SALES	580,550									

NAMEPLATE: OLDSMOBILE YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	346,012	40.4	39.6	4365	123.6	215.0	77.9	394.0	10.3	4673
INTERMEDIATE	94,983	7.9	8.7	2811	112.0	188.2	71.6	215.5	8.8	3000
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		33.3	32.9	4031	121.1	209.3	76.5	355.6	9.9	4313
TOTAL SALES	440,995									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: OLDSMOBILE

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	305,261	NR	28.0	4170	123.3	210.0	78.5	371.0	10.0	4500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES			28.0	4170	123.3	210.0	78.5	371.0	10.0	4500
TOTAL SALES	305,261									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: OPEL

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	60,473	NR	NR	2219	95.6	167.0	63.7	115.8	7.6	2500
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2219	95.6	167.0	63.7	115.8	7.6	2500
TOTAL SALES	60,473									

NAMEPLATE: OPEL

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	82,822	NR	NR	1864	95.1	163.5	62.0	65.8	8.6	2182
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	1864	95.1	163.5	62.0	65.8	8.6	2182
TOTAL SALES	82,822									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: OPEL **YEAR:** 1966

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	31,555	NR	NR	1624	95.1	162.8	61.9	65.8	8.8	2000
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	1624	95.1	162.8	61.9	65.8	8.8	2000
TOTAL SALES	31,555									

NAMEPLATE: OPEL **YEAR:** 1962

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	1,255	NR	NR	2113	100.0	177.7	NR	102.5	7.8	2500
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES				2113	100.0	177.7	NR	102.5	7.8	2500
TOTAL SALES	1,255									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: OPEL

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	15,675	NR	NR	1975	100.4	174	NR	90.8	6.9	2250
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	1975	100.4	174	NR	90.8	6.9	2250
TOTAL SALES	15,675									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: PLYMOUTH **YEAR:** 1972

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	230,570	91.0	18.5	4172	120.4	218.2	79.9	318.0	8.6	4600
INTERMEDIATE	139,739	69.9	54.0	3662	116.0	204.7	78.7	314.0	8.6	4073
COMPACT	270,638	32.7	40.4	2998	108.0	188.4	70.7	230.4	8.5	3500
SUB-COMPACT										
SPECIALTY	15,809	34.8	49.3	3399	108.0	186.6	74.9	313.4	8.6	3500
AVERAGE OF ALL MARKET CLASSES		61.1	35.8	3561	114.0	202.3	75.7	280.9	8.5	4008
TOTAL SALES	656,756									

NAMEPLATE: PLYMOUTH **YEAR:** 1970

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	257,374	117.3	29.1	4062	120.3	216.3	79.6	315.1	8.8	4487
INTERMEDIATE	139,007	42.0	41.7	3398	116.1	204.6	76.4	296.3	8.7	3559
COMPACT	246,013	20.6	26.8	2966	108.0	188.4	71.1	249.2	8.6	3500
SUB-COMPACT										
SPECIALTY	39,366	23.6	56.9	3218	108.0	186.7	74.9	250.6	8.5	3500
AVERAGE OF ALL MARKET CLASSES		61.7	32.4	3482	114.3	202.1	75.6	283.8	8.7	3703
TOTAL SALES	681,760									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: PLYMOUTH YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	293,467	38.8	45.8	3962	119.3	210.8	78.7	311.5	9.0	4104
INTERMEDIATE	164,023	17.6	32.2	3403	116.1	201.3	75.5	260.8	8.7	3559
COMPACT	112,360	7.2	13.5	2832	106.0	188.3	70.2	179.1	8.5	3000
SUB-COMPACT										
SPECIALTY	28 310	13.9	20.6	3060	106.0	188.3	70.2	259.0	8.7	3500
AVERAGE OF ALL MARKET CLASSES		25.9	34.8	3554	115.3	202.9	75.8	270.2	8.8	3719
TOTAL SALES	598,160									

NAMEPLATE: PLYMOUTH YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	178,165	6.8	24.2	3279	116.0	203.4	75.4	273.0	8.6	3588
INTERMEDIATE										
COMPACT	122,993	0	9.4	2635	106.5	184.2	70.4	170.0	8.2	3000
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		4.0	18.2	3016	112.1	195.6	73.4	230.9	8.4	3348
TOTAL SALES	301,158									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: PLYMOUTH

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	388,957	NR	10.4	3555	118.0	205.2	78.6	295.9	8.8	3874
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	10.4	3555	118.0	205.2	78.6	295.9	8.8	3874
TOTAL SALES	388,957									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: PONTIAC

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	323,573	103.2	17.9	4549	124.7	223.2	79.3	393.6	8.1	4800
INTERMEDIATE	173,575	79.2	66.8	3835	113.2	204.7	76.7	346.6	8.0	4033
COMPACT	61,504	35.5	39.6	3254	111.0	194.5	72.4	285.5	8.5	3500
SUB-COMPACT										
SPECIALTY	113,847	103.6	44.9	4075	116.1	209.5	75.8	390.0	8.2	4407
AVERAGE OF ALL MARKET CLASSES		92.3	37.6	4229	120.8	216.7	78.6	376.6	8.2	4483
TOTAL SALES	662,499									

NAMEPLATE: PONTIAC

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	249,839	98.1	51.7	4551	123.7	220.0	79.8	398.1	9.6	4671
INTERMEDIATE	188,263	54.1	60.7	3793	116.0	206.7	76.7	340.8	8.8	4023
COMPACT										
SUB-COMPACT										
SPECIALTY	106,613	77.5	46.8	3864	112.7	200.4	74.5	382.6	9.8	4236
AVERAGE OF ALL MARKET CLASSES		78.9	53.8	4155	118.9	211.6	77.7	375.2	9.4	4362
TOTAL SALES	544,715									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: PONTIAC

YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	467,600	51.5	49.5	4251	122.2	217.6	79.7	389.3	9.3	4548
INTERMEDIATE	363,256	23.4	41.7	3504	115.0	206.3	74.4	301.7	9.2	4000
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		39.2	46.1	3924	119.0	212.7	77.4	351.0	9.3	4308
TOTAL SALES	830,856									

NAMEPLATE: PONTIAC

YEAR: 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	351,824	30.4	55.5	4133	121.1	215.0	78.6	389.0	8.6	4546
INTERMEDIATE	138,144	3.6	7.5	2972	112.0	189.3	72.2	194.5	8.6	3500
COMPACT										
SUB-COMPACT										
SPECIALTY	38,686	30.4	56.4	4054	120.0	211.6	78.6	389.0	10.3	4500
AVERAGE OF ALL MARKET CLASSES		23.4	43.0	3823	118.6	208.0	76.9	338.2	8.7	4269
TOTAL SALES	528,654									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: PONTIAC

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P&L})$ lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	229,707	NR	34.3	4057	123.0	213.3	77.4	370.0	10.1	4500
INTERMEDIATE										
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	34.3	4057	123.0	213.3	77.4	370.0	10.1	4500
TOTAL SALES	229,707									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: STUDEBAKER

YEAR: 1966

MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
		SALES-WEIGHTED PARAMETERS								
STANDARD										
INTERMEDIATE	5,767	NR	NR	3055	113.0	190.4	71.5	238.0	8.8	3500
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	3055	113.0	190.4	71.5	238.0	8.8	3500
TOTAL SALES	5,767									

NAMEPLATE: STUDEBAKER

YEAR: 1962

MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
		SALES-WEIGHTED PARAMETERS								
STANDARD										
INTERMEDIATE										
COMPACT	86,148	2.7	16.3	3168	109.0	184.4	71.3	220.4	8.4	3500
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		2.7	16.3	3168	109.0	184.4	71.3	220.4	8.4	3500
TOTAL SALES	86,148									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: STUDEBAKER - PACKARD

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD	10,518	NR	10.1	3546	120.5	207.9	75.7	289	8.3	4000
INTERMEDIATE	39,345	NR	10.4	3038	116.5	202.4	75.8	199.8	7.9	3500
COMPACT										
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	10.3	3145	117.3	203.5	75.8	218.7	8.0	3605
TOTAL SALES	49,863									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: TOYOTA

YEAR: 1972

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	256,227	NR	NR	2160	94.9	164.2	61.3	105.7	8.6	2466
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2160	94.9	164.2	61.3	105.7	8.6	2466
TOTAL SALES	256,227									

NAMEPLATE: TOYOTA

YEAR: 1970

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT	6251	NR	NR	3148	105.9	184.1	66.5	137.5	8.8	3500
SUB-COMPACT	178,647	NR	NR	2113	94.7	161.8	61.0	99.6	8.7	2412
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2148	95.0	162.5	61.2	100.8	8.7	2448
TOTAL SALES	184,898									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: TOYOTA

YEAR: 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT $(W_{P\&L})$ lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT	732	NR	NR	2467	105.3	183.1	66.6	115.7	8.0	3250
SUB-COMPACT	15,182	NR	NR	2211	95.3	161.8	61.0	115.7	8.0	2500
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2237	95.7	162.6	61.2	115.7	8.0	2530
TOTAL SALES	15,914									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: VOLKSWAGEN

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	447,310	NR	NR	2134	95.0	163.8	63.0	97.6	7.3	2469
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2134	95.0	163.8	63.0	97.6	7.3	2469
TOTAL SALES	447,310									

NAMEPLATE: VOLKSWAGEN

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	569,078	NR	NR	2073	94.5	162.8	62.5	96.7	7.5	2379
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2073	94.5	162.8	62.5	96.7	7.5	2379
TOTAL SALES	569,078									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: VOLKSWAGEN

YEAR: 1966

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	420,018	NR	NR	1909	94.5	161.9	61.2	82.2	7.4	2170
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	1909	94.5	161.9	61.2	82.2	7.4	2170
TOTAL SALES	420,018									

NAMEPLATE: VOLKSWAGEN

YEAR: 1962

MARKET CLASS	SALES	SALES-WEIGHTED PARAMETERS								
		AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in	OVERALL LENGTH (OAL) in	OVERALL WIDTH (OAW) in	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	192,571	NR	NR	1760	94.5	161.0	NR	72.7	7.0	2083
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	1760	94.5	161.0	NR	72.7	7.0	2083
TOTAL SALES	192,571									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE VOLKSWAGEN

YEAR 1958

		SALES WEIGHTED PARAMETERS								
MARKET CLASS	**SALES**	**AIR CONDITIONING WEIGHT (W_{AC}) lb**	**POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb**	**CURB WEIGHT (W_C) lb**	**WHEEL BASE (WB) in**	**OVERALL LENGTH (OAL) in**	**OVERALL WIDTH (OAW) in**	**ENGINE DISPLACEMENT (CID) in^3**	**COMPRESSION RATIO (CR)**	**INERTIA TEST WEIGHT (W_I) lb**
STANDARD										
INTERMEDIATE										
COMPACT										
SUB-COMPACT	78,225	NR	NR	1699	94.5	161.0	NR	72.7	6.6	2053
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	1699	94.5	161.0	NR	72.7	6.6	2053
TOTAL SALES	78,225									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: VOLVO

YEAR: 1972

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT	44,831	NR	NR	2771	104.0	183.3	68.1	133.2	9.2	3100
SUB-COMPACT	2973	NR	NR	2619	96.5	172.0	67.0	121.0	8.7	2879
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2762	103.5	182.6	68.0	132.4	9.2	3086
TOTAL SALES	47,804									

NAMEPLATE: VOLVO

YEAR: 1970

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEEL-BASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT	43,027	NR	NR	2735	103.0	183.1	68.3	129.8	9.3	3072
SUB-COMPACT	1603	NR	NR	2600	96.5	173.3	67.0	121.0	10.5	3000
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES				2730	102.7	182.8	68.3	129.5	9.3	3070
TOTAL SALES	44,630									

By-Nameplate Sales-Weighted Averages
MARKET CLASS AND TOTALS

NAMEPLATE: VOLVO **YEAR:** 1966

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT	23,870	NR	NR	2299	102.4	175.1	63.75	108.5	8.7	2553
SUB-COMPACT	1,256	NR	NR	2392	96.5	173.6	67.0	108.5	10.0	2750
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2304	102.1	175.1	63.9	108.5	8.8	2563
TOTAL SALES	25,126									

NAMEPLATE: VOLVO **YEAR:** 1962

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT	12,631	NR	NR	2413	102.5	175.3		108.5	8.5	2714
SUB-COMPACT	526	NR	NR	2552	96.5	173.0		108.5	9.5	2750
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2419	102.3	175.2		108.5	8.5	2715
TOTAL SALES	13,157									

By-Nameplate Sales-Weighted Averages

MARKET CLASS AND TOTALS

NAMEPLATE: VOLVO

YEAR: 1958

		SALES-WEIGHTED PARAMETERS								
MARKET CLASS	SALES	AIR CONDITIONING WEIGHT (W_{AC}) lb	POWER AND LUXURY ITEMS WEIGHT ($W_{P\&L}$) lb	CURB WEIGHT (W_C) lb	WHEELBASE (WB) in.	OVERALL LENGTH (OAL) in.	OVERALL WIDTH (OAW) in.	ENGINE DISPLACEMENT (CID) in^3	COMPRESSION RATIO (CR)	INERTIA TEST WEIGHT (W_I) lb
STANDARD										
INTERMEDIATE										
COMPACT	14,000	NR	NR	2183	102.5	177	NR	97.6	8.2	2500
SUB-COMPACT										
SPECIALTY										
AVERAGE OF ALL MARKET CLASSES		NR	NR	2183	102.5	177	NR	97.6	8.2	2500
TOTAL SALES	14,000									